

# KV-C2521D/C2531D

## RM-689

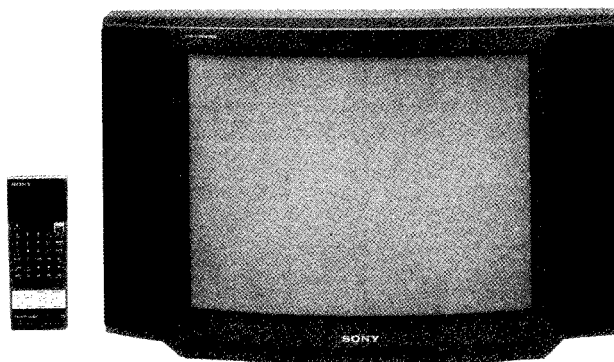
## SERVICE MANUAL

*AEP Model*

KV-C2521D

Chassis No. SCC-D51E-A

Chassis No. SCC-D51D-A



## AE-1B CHASSIS

**Note:** The service manual for RM-689 has been issued separately.

### MODELS OF THE SAME SERIES

KV-C2521D/C2531D	
KV-X2531D	
KV-X2131D	

### SPECIFICATIONS

Television system B/G/H

Color system PAL, SECAM, NTSC3.58, NTSC4.43

Channel coverage VHF : E2-E12 UHF : E21-E69  
CABLE : S1-S41

Picture tube Trinitron tube  
Approx. 63.5 cm (25 inches)  
(Approx. 59 cm picture measured diagonally  
110-degree deflection)

Inputs 1 21-pin connector :  
CENELEC standard including RGB input.  
 2 21-pin connector :  
including S video input  
 3 Video, Audio : phono jack.

Outputs 21-pin connector : CENELEC standard  
Headphones jack : stereo minijack  
External speaker terminals : 2-pin DIN  
Audio output jacks : phono jack (output  
dependent upon TV settings)

Sound output 15 W + 15 W (KV-C2521D)  
30 W + 30 W

Power consumption 96 Wh (KV-C2521D)  
101 Wh

Dimensions Approx. 769x492x478 mm (w/h/d)

Weight Approx. 37.0 kg (KV-C2521D)  
38.0 Kg

RM-689 Remote Commander (1)  
Supplied accessories IEC designation R6 batteries (2)

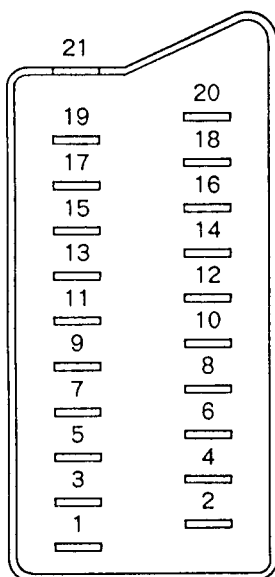
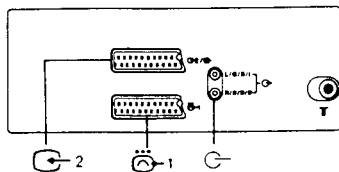
Design and specifications are subject to change  
without notice.

# TRINITRON® COLOR TV

# SONY®



21 pin connector (1, 2)



Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
2	○	○	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
3	○	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
7	○	●	Blue input	0.7V±3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5-12 V) : Part mode Low state (0-2 V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal : 0.7V±3dB, 75ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	-	Red input	0.7V±3dB, 75ohms, positive
	-	○	(S signal) chroma input	0.3V±3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1-3 V) Low state (0-0.4 V) Input impedance : 75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V±3dB, 75ohms, positive Sync : 0.3V (-3, +10dB)
20	○	-	Video input	1 V±3dB, 75ohms, positive Sync : 0.3V (-3, +10dB)
	-	○	Video input/Y (S signal)	1 V±3dB, 75ohms, positive Sync : 0.3V (-3, +10dB)
21	○	○	Common ground (plug, shield)	


○ connected      ● unconnected (open)

\* at 20 Hz-20 kHz

### WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

### SAFETY-RELATED COMPONENT WARNING !!

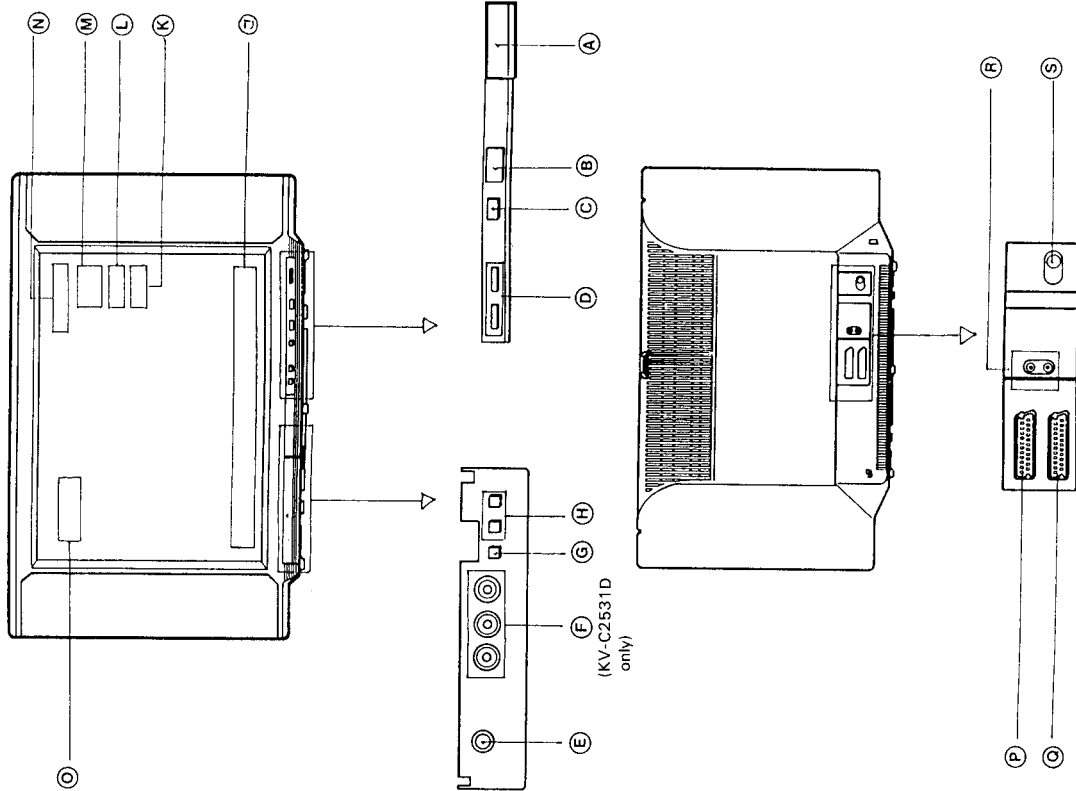
COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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# SECTION 1 GENERAL

## 1-1. FUNCTION OF CONTROLS



### ON THE SET

**(A) Power Switch** Use it to switch the set on and off. When you switch the set on, the programme number of the station tuned in will be indicated in the on-screen display **(M)** for some seconds. In case of short breaks of operation, you can switch the set on and off using the Remote Commander (See »CONTROLS ON THE REMOTE COMMANDER«).

**(B) Remote control detector** (See »CONTROLS ON THE REMOTE COMMANDER«).

**(C) Standby/Response indicator** This indicator lights up when the TV set is in standby mode and it flashes each time the set receives signals from the Remote Commander.

**(D) Stereo A/B indicators** During bilingual programmes one of the two indicators lights up, depending upon the selected channel **A** or **B**. When stereo programmes are broadcast both indicators light up. (See »CONTROLS ON THE REMOTE COMMANDER«).

**Jacks and control panel (front of set)** The jacks and the control panel are situated behind a cover. Please press the arrow marking on the cover to open it.

**(E) Headphones jack (stereo minijack)** Connect only stereo headphones.

**(F) Input jacks** (KV-C2531D only)  
Video input jack (phono jack) (yellow)  
Audio input jacks (phono jacks) (red and white).

**(G) Mode select button** Use this button to select either the channel select mode, volume adjustment or the input mode.

**(H) Adjustment buttons +/-** Select at first the item to be adjusted using the Mode select button **(G)** (channel select mode), (volume) or (input mode), then adjust the item by pressing the + or - button. You can also use these buttons to reset the picture and sound adjustments to the factory-set levels. For this purpose press both buttons simultaneously.

### On-screen display

When you repeatedly press button on the Remote Commander, the following information will be indicated on the screen in turn:

### (J) Picture and sound adjustment items:

contrast, colour, brightness, bass, treble or balance and their respective levels; as well as mute, reset, space sound, loudness and NICAM indications, when the respective buttons are pressed.

When you press button on the Remote Commander, the following information will be indicated on the screen:

**(K) TV-System: 1 (normal UK broadcast system)**

**(L) Channel number**

**(M) Programme number or input mode;**

1, 2, 3;

**(N) Indication of the station name**

**(O) AV output indication; 1 , 2 , 3 or TV (see »CONTROLS ON THE REMOTE COMMANDER«).**

### Connectors on the rear

**(P) Euro-AV-connector 21-pin 2/ 2**

For connecting a VTR, 8 mm video camera recorder, a video disc player or in general devices with an S-Video-output.

**(Q) Euro-AV-connector 21-pin 1**

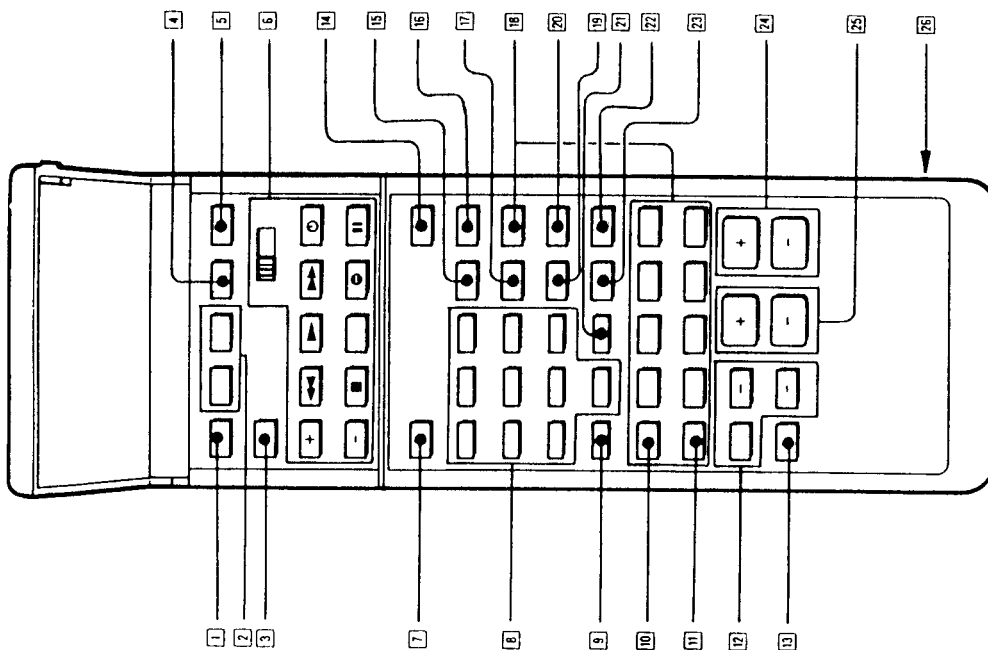
For connecting a VTR, a computer etc. with RGB output.

**(R) Audio-output-jacks** (phono jacks)

For connecting audio equipment, e.g. an amplifier, so that the sound will be output at the audio equipment. In this case the volume is adjustable on the TV set.

**(S) Aerial terminal**





#### ON THE REMOTE COMMANDER

On the set there is a Remote Control detector (B), which receives the signals of the Remote Commander.

- 1 → **Preset-button** Used for selecting the Preset mode. See "TO PRESET CHANNELS".

- 2 → **Tuning +/- buttons**

a) Preset mode: Used for tuning in stations in the Automatic Station Search. See "TO PRESET CHANNELS".  
b) TV mode: Used for fine-tuning a station. See "ADDITIONAL FUNCTIONS".

- 3 **Clear button (Clear)**

Used for clearing programme positions, so that the position will be skipped when the PROGR +/- buttons [23] are pressed. See "TO PRESET CHANNELS".

- 4 **Store button:** Used for storing channels. See "TO PRESET CHANNELS".

- 5 **TV-system-select-button**

This button has no function.

- 6 **Video selector and video operation buttons**  
Used for operating Sony video equipment. For details see "OPERATING OTHER EQUIPMENT".

- 7 **Mute button**

By pressing this button the sound of the set will be switched off and by pressing it once more the sound will be restored.

- 8 **Number buttons**

a) Used to select programme positions or to input channel numbers (in the preset mode).  
b) If the set is in the standby mode, press one of the number buttons to switch it on.  
c) After pressing the output select button [9] the buttons 1-2 can be used to select the different output connectors.

- 9 **/- Button**

In case of two digit numbers, press first this button and then the two respective number buttons [8].

- 10 **Button for On-screen display**

By pressing this button, information about the station tuned-in will be indicated on the screen. The indications will disappear after some seconds with the exception of the programme number and label, which will stay on the screen until the button is pressed once again.

- 11 **Time button**

In TV-mode: If teletext service is broadcast on the selected channel, press this button to display the current time on the screen and once again to make it disappear.

- 12 **+/- Buttons for picture and sound adjustments**

a) **TV-mode:**

The picture and sound adjustments are stored as standard values. You have, however, the possibility to change them to your individual liking. Press the button repeatedly until the required item is indicated in the on-screen display: contrast, colour, brightness, hue (only for NTSC colour system), bass, treble or balance. You can adjust the settings by pressing the + or - button.

b) **Preset-mode:** Use these buttons to name a station. See "TO PRESET CHANNELS".

- 13 **Reset-button**

By pressing this button the picture and sound adjustments are reset to the factory-set levels.

- 14 **Standby-button**

Press this button to switch the set into standby-mode. You can switch it on again by pressing the TV-button [5] or one of the number buttons [8]. To return to the teletext mode, press [9] button. There will be a slight delay before the picture is restored.

#### Note

Use the Standby-button [14] only when switching the set off for a short period of time. If the set will not be used for a longer span of time, switch it off by using the Power switch (A).

- 15 **Input-Select-Button**

Press this button to select the audio- or video-signals input at the various input connectors. With each pressing of the button a different connector is selected. The following indications will appear sequentially:  
1 → 2 → (RGB) → 3 → 2 → 2 → 3

- 16 **TV-Button**

When pressing this button the set returns from standby, video input- or teletext mode to the TV-mode.

- 17 **Output-Select-Button**

Press this button to select the audio- or video signals to be output at the [5]/[5] connector.  
With each pressing of the button a different output source will be selected. The following indications appear sequentially:  
1 → 2 → 3 → TV →

- 18 **Teletext operation buttons**

These buttons are used for teletext operation. See "VIEWING TELETEXT".

- 19 **Loudness button**

By pressing this button the high and low tones will be emphasized. Press the button again to restore the normal sound. The indications on the screen will be (ON) or (OFF).

- 20 **A/B button**

To select the audio channel of bilingual programmes. Usually the dubbed version is broadcast on channel A and the original sound is broadcast on channel B. In the video input mode (Euro-AV-connectors) this possibility of selecting channels also exists for stereo VTR connection.

- 21 **C (Channel select) button**

Use this button for direct channel tuning in the TV-mode. See "ADDITIONAL FUNCTIONS".

- 22 **This button has no function on this set.**

- 23 **Space sound button**

Press this button to obtain special acoustic effects. Press it again to restore the normal sound. The indications on the screen will be (ON) or (OFF).

- 24 **PROGR +/- buttons**

TV-mode: Use these buttons to scan the available programmes up- or downwards.  
Preset mode: Use these buttons to scan the available channels up or downwards.

- 25 **+/- buttons for adjusting the volume**

- 26 **Battery compartment (on the rear)**

## 1-2. TO PRESET CHANNELS

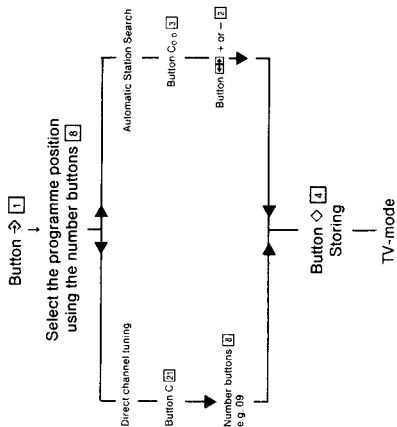
Use the buttons on the Remote Commander for presetting. In total there are 60 programme positions at your disposal for storing channels.  
There are two different ways of tuning in channels:

### 1. Direct Channel Tuning

If you know the channel number of a station you can input it directly.

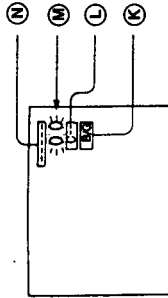
### 2. Automatic Station Search

The set searches automatically for stations.

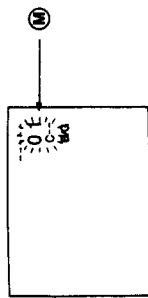


### 1. Direct Channel Tuning

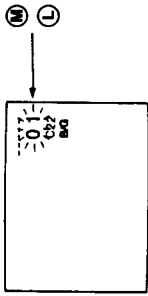
1. Press the Preset button  $\rightarrow$  1. You are now in the preset mode of the set. The programme number in the on-screen display **M** starts blinking.



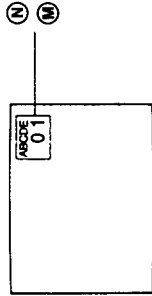
2. With the buttons PROG  $\pm$  22 or the number buttons 0-9 you can select the programme position. In case of two-digit numbers, first press the button  $\pm$  22 and then the two number buttons.



3. Press button C 21. The indication „C“ and the channel number start blinking in the display **L**. Select the channel number with two digits (e.g. 22) using the number buttons 0-9.



4. Press the button  $\rightarrow$  4 in order to store the channel and to return to the TV-mode.



If you want to store further channels, repeat the steps 1 to 4.

### 2. Automatic Station Search

1. Press button  $\rightarrow$  1. You are now in the preset mode of the set. The programme number in the on-screen display **M** starts blinking.

2. With the PROG buttons  $\pm$  22 or the number buttons 0-9 you can select the programme position. In case of two-digit numbers, first press button  $\pm$  22 and then the two number buttons.

3. If there is already a stored station on the selected programme position, press button C 21.

4. Press one of the tuning buttons  $\pm$  22  $\pm$  22 to start the station search. The search will be interrupted as soon as a station is tuned in. Press the tuning buttons repeatedly until you find the desired station.

5. If you have found the desired station, press button  $\rightarrow$  4. Now the selected station is stored and you are back in the TV-mode.

6. If you want to store further stations, repeat the steps 1-5.

### Skipping of unused programme positions

Using button C 21 you have the possibility to skip unused programme positions (e.g. without a stored station), when pressing the buttons PROG  $\pm$  22 on the Remote Commander.

1. Press button  $\rightarrow$  1. You are now in the preset mode of the set.

2. Use the buttons PROG  $\pm$  22 to select a programme position, which you want to have skipped.

3. Press button C 21.

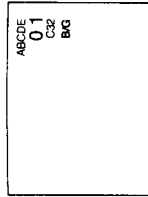
4. Press button  $\rightarrow$  4 to store the cleared programme position and to return to the TV-mode.

The skipped programme position still appears when you press the number buttons 0-9 on the Remote commander.

### If you want to name a station

After presetting the stations you have the possibility to name them. The selected name will appear in the on-screen display **N**.

1. Press the preset button  $\rightarrow$  1.
2. Press the button  $\rightarrow$  2. The first column of the station name starts blinking. Press either button + or - 22 and select the desired character (number or letter, 0-9, A-Z, or - for a blank space).
3. Press button  $\rightarrow$  2 again. Now the second column starts blinking and you can select the second character. In this way five characters can be selected.
4. Press button  $\rightarrow$  4 to store the station name.



### Notes

- If you press the preset button  $\rightarrow$  1 instead of button  $\rightarrow$  2 the set will return to the TV-mode without storing the channels.
- If you press a wrong programme or a channel number, an „x“ will be displayed on the screen.
- When pressing two number buttons, the second number button should be pressed within 5 seconds after the first one, otherwise the operation will be cancelled.

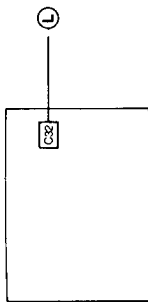
### ADDITIONAL FUNCTIONS

#### Direct Channel Tuning in the TV-mode

You have the possibility to tune in channels directly when the set is in the TV-mode without storing these channels. Example: if you tune in channel number 32 and then switch the set off or change the programme position, this channel will be cancelled.

1. Press the button C 21. In the display **L** the indication „C“ will appear.

2. Select the channel number with two digits using the number buttons 0-9 (e.g. for channel 4 press first 0, then 4). The indication on the screen will disappear within some seconds.



### Manual Fine Tuning

If the reception of a channel is not satisfactory, you have the possibility to deactivate the Automatic Fine Tuning, which is usually in operation during presetting in order to tune in the best possible picture.

Press one of the tuning buttons  $\pm$  22  $\pm$  22 to fine-tune a channel. The Automatic Fine Tuning will be restored when the respective programme position is pressed once again.

### 1-3. VIEWING TELETEXT

To view the teletext service, use the Remote Commander. The buttons for teletext operation are indicated in green.

#### Operation

- 1 Select the TV channel for the desired teletext service. If the signal is weak, teletext errors often occur.
- 2 Press **⏏** (TEXT/MIX) to display the teletext service.
- 3 Key in the three digits of the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then, re-enter the correct page number.

The requested teletext page is displayed.

#### To request the index page

Press **⏏** (INDEX).  
If the necessary signal is not being broadcast, page 100 is displayed.

#### To access the next or preceding page

Press **⏏** (PAGE +) or **⏏** (PAGE -).

#### To superimpose the teletext display on the picture (MIX)

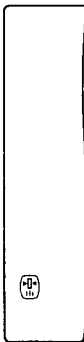
Press **⏏** twice from the TV mode.  
Press **⏏** again to return to the TEXT display.

#### To suppress the teletext display so that the picture is restored

Press **⏏** (text clear). This button can be operated from both the text and mix displays.

#### To prevent a teletext page from being updated/changed

Press **⏏** (HOLD). The HOLD symbol appears on the screen.  
To resume normal teletext reception, press **⏏** (TEXT/MIX).



To resume normal teletext reception, press **⏏**.

#### To enlarge the teletext display

Press **⏏** once to enlarge the upper half of the display, press again to enlarge the lower half of the display. And press again to return to the normal display.

#### To reveal concealed information such as answers to a quiz

Press **⏏** (REVEAL).  
Press again to conceal the answers.

#### To watch the TV programme while waiting for a requested page to be displayed

- 1 Request the new page.

#### FASTEXT Operation

FASTEXT Teletext enables you to access pages quickly and conveniently with one key operation.

When a FASTEXT page is broadcast a colour coded menu will appear at the bottom of the screen. Each coloured prompt relates to the coloured keys on the Remote Commander. Pressing one of these will select the page described by the prompt.

### 1-4. OPERATING OTHER EQUIPMENT

#### To view the input picture

Press the **⏏** button repeatedly until the desired input signal indication appears on the screen.

**⏏-1**: to view the audio and video signal input through the **⏏-1** connector on the rear.

**⏏-1**: to view the RGB signal (i.e. from a computer, etc.) input through the **⏏-1** connector.

**⏏-2**: to view the audio and video signal input through the **⏏-2/⏏** connector on the rear.

**⏏-2**: to view the S video signal (from a VTR equipped with an S video output) input through the **⏏-2/⏏** connector.

**⏏-3**: to view the audio and video signal input through the **⏏-3** connectors and the audio input jacks **⏏** (yellow, white and red) on the front.

You can also select the desired input mode using the buttons on the front of the set. Select the **⏏** mode with the mode select **⏏** → **⏏** → **⏏** button **⏏** then press **+/-** button.

To return to the TV mode, press the TV-button **⏏**.

#### To select the signal to be output from the ⏏-2/⏏ connector

Press the **⏏** button **⏏** repeatedly until the desired output source is indicated on the screen:

**⏏-1**: The audio and video signal input through the **⏏-1** connectors is output from the **⏏-2/⏏** connector.

**⏏-2/⏏**: The audio and video signal input through the **⏏-2/⏏** connector is output from the **⏏-2/⏏** connector.

**⏏-3**: The audio and video signal input through the **⏏-3** connectors is output from the **⏏-2/⏏** connector.

**TV**: The audio and video signal input through the **⏏** aerial terminal (i.e. usually the TV signal) is output from the **⏏-2/⏏** connector.

The indication will disappear after a few seconds.

#### Note

The TV-signal is always output at the EURO-AV connector **⏏-1**.

**To operate Sony video equipment**  
The video operation buttons **⏏** on the Remote Commander can operate certain VTRs and video disc players manufactured by Sony.

1. Switch the video selector to the desired position.  
**VIDEO 1**: to operate Sony Betamax VTR and SLV 202 VHS.  
**VIDEO 2**: to operate Sony 8 mm VTR.  
**VIDEO 3**: to operate Sony VHS VTR.  
**MDP**: to operate Sony video disc player including a multi disc player.

2. Press the operation button(s) to start operation.  
**PROGR +/-**: to select the desired programme on the VTR.

**⏏**: to start playback, or to release the pause mode

**⏏**: to stop the tape or the disc

**⏏**: to rewind the tape from stop mode or to rapidly go back to the desired position on the disc or tape from playback mode

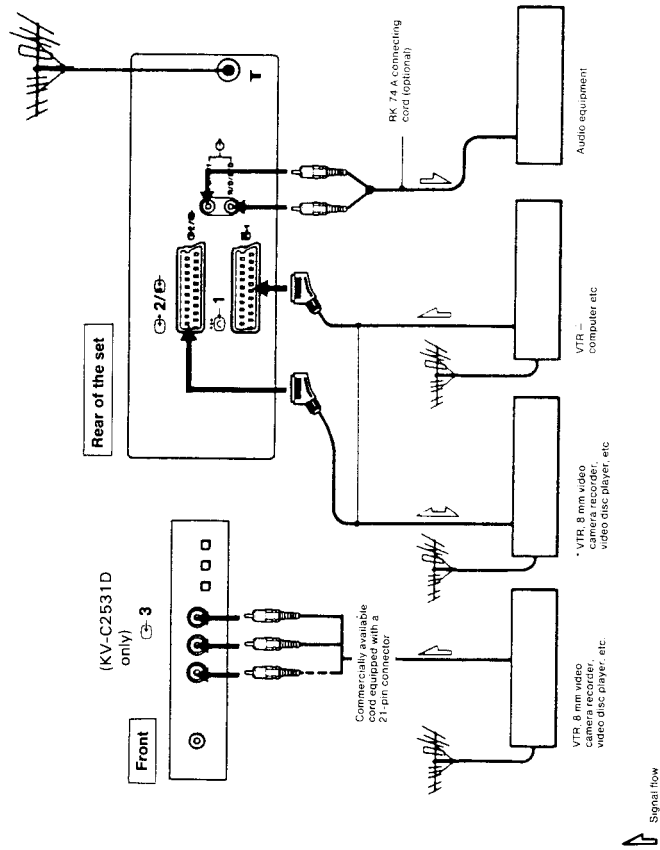
**⏏**: to fast forward wind from stop mode or rapidly advance the tape or disc to the desired position from playback mode

**⏏**: to start recording on the VTR  
Be sure to press this button and the one on the right simultaneously

**⏏**: to switch the video equipment on and off

**⏏**: to stop the tape or the disc temporarily (pause)  
Press again to release pause mode

## 1-5. CONNECTING OTHER EQUIPMENT



- \* Connect the S video output of the VTR, etc. here.

## Notes

- It is also possible to connect a VTR using the **Y** terminal. In this case, connect the aerial to the aerial terminal of the VTR.
- Move the VTR away from the TV if the picture or the sound is distorted.
- Computers which have RGB output only can be connected to the **RGB-1** input connector.

S video input (Y/C input) 

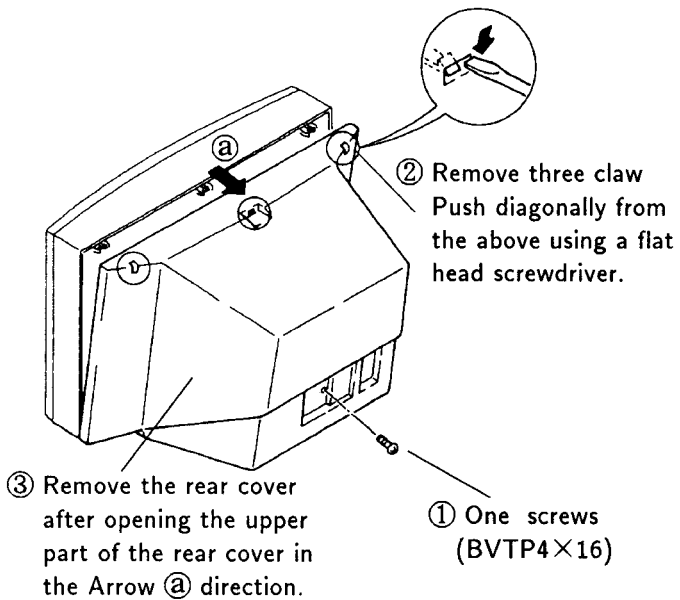
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.

Usually these two signals are combined in a VTR and output as one signal, and supplied to a TV. Separation of the Y and C signals prevents them from interfering with one another, thereby improving picture quality (especially in luminance). This set is equipped with a S video input through which these separated signals can be input directly. Connect the S video output jack on the VTR to the S video input on this set.

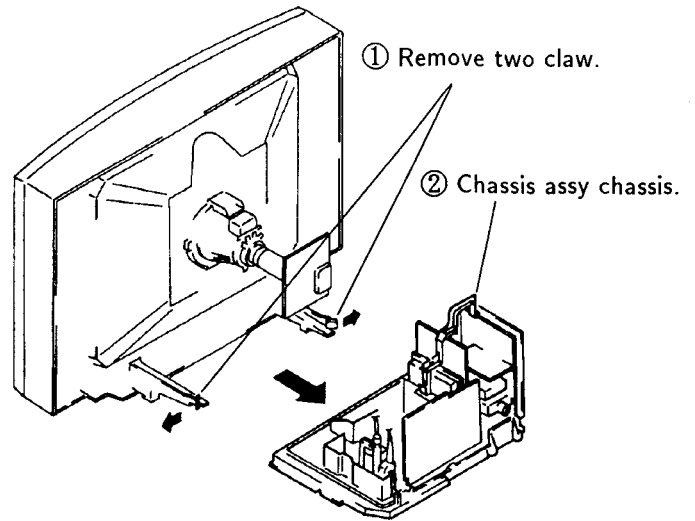
**Note:** Not all VTR's are equipped with S video output capability. (Refer to VTR operating manual.)

## SECTION 2 DISASSEMBLY

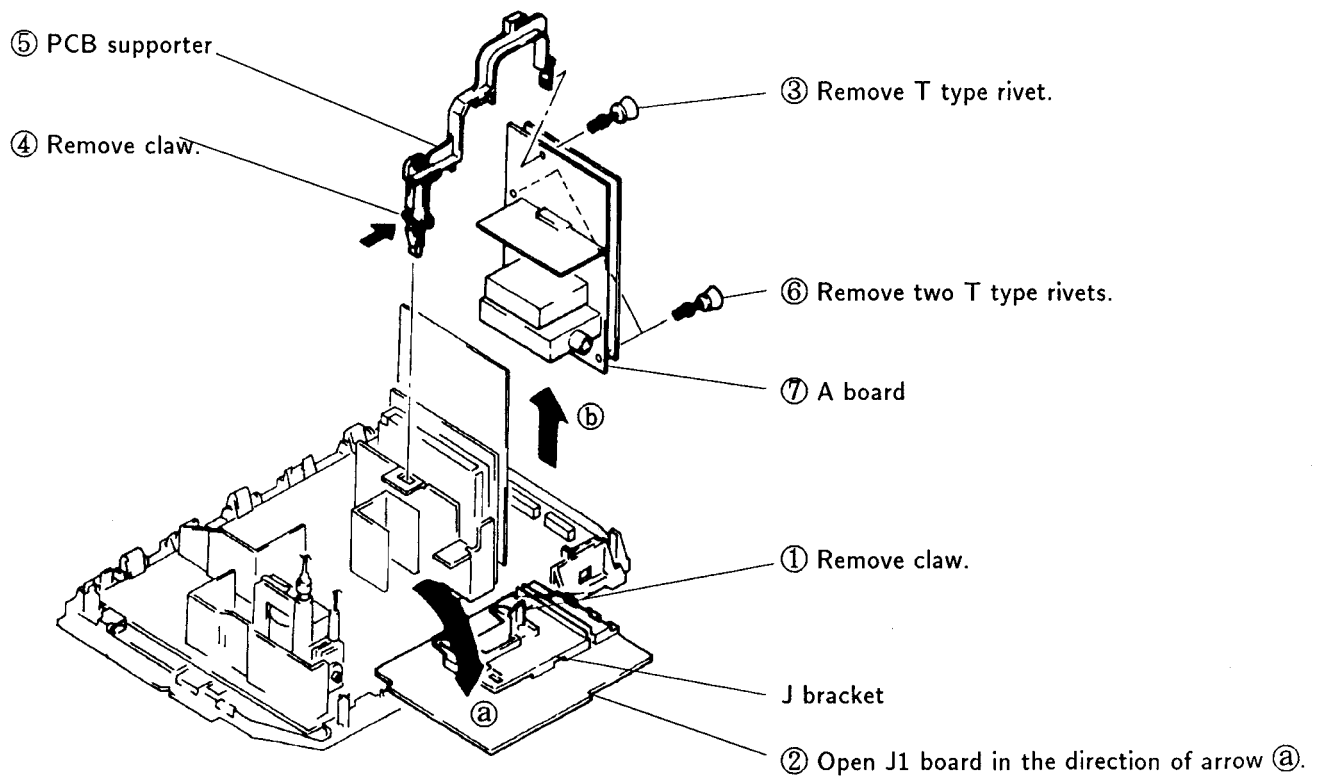
### 2-1. REAR COVER REMOVAL



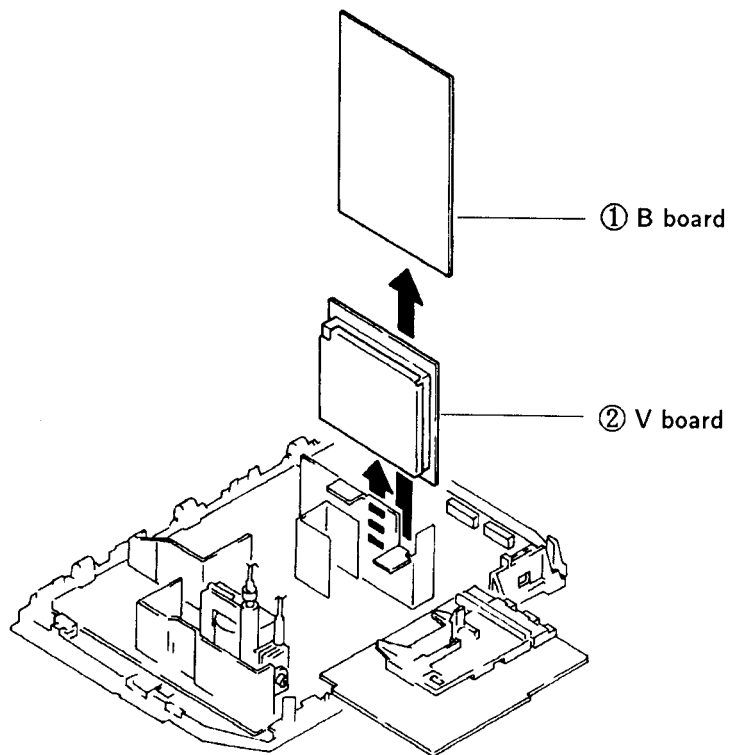
### 2-2. CHASSIS ASSEMBLY REMOVAL



### 2-3. A AND J1 BOARDS REMOVAL

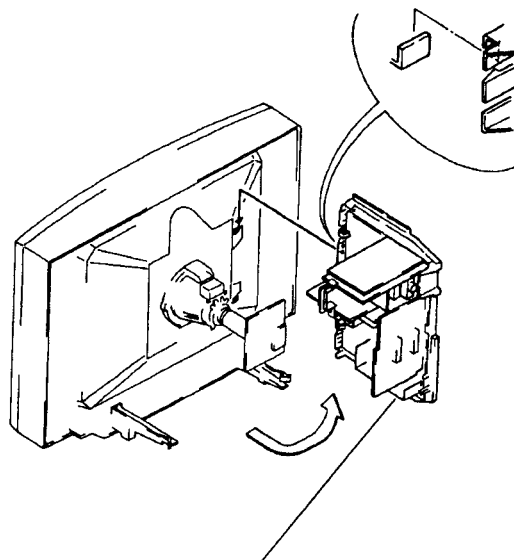


## 2-4. B AND V BOARDS REMOVAL



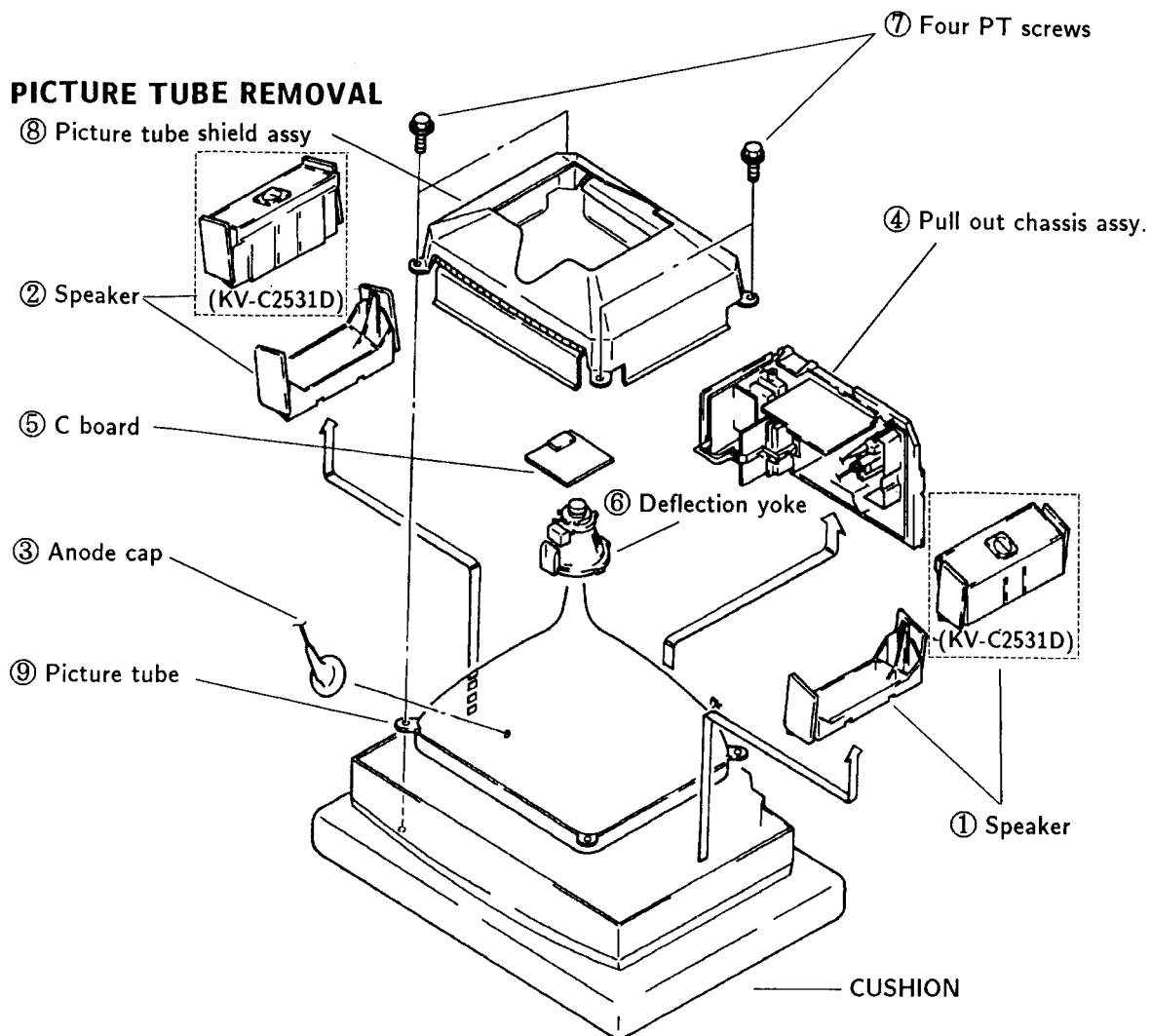
## 2-5. SERVICE POSITION

\* Remove the connector bracket and then perform the following servicing.  
(Refer to 2-2. CHASSIS ASSEMBLY REMOVAL.)



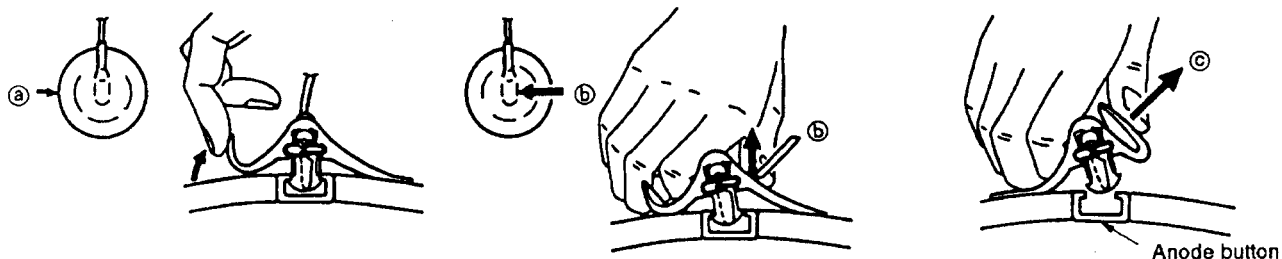
Remove main chassis in the arrow direction.

## 2-6. PICTURE TUBE REMOVAL



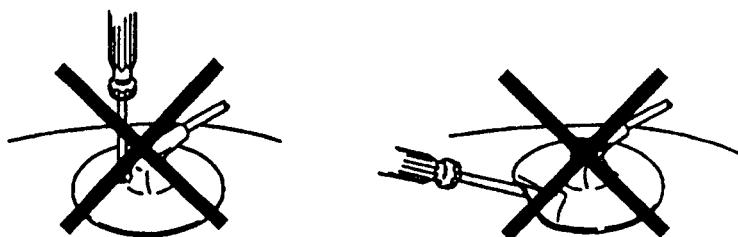
## • REMOVAL OF ANODE-CAP

### • REMOVING PROCEDURES



### • HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!  
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!  
The shatter-hook terminal will stick out or hurt the rubber.



## SECITON 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :
  - ⓘ Contrast .....80%  
(or remote control normal)
  - ☼ Brightness .....50%

- Carry out the following adjustments in this order:

1. Beam landing
2. Convergence
3. Focus
4. White balance

**Note :** Testing equipment required

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

### Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

### 3-1. BEAM LANDING

1. Input the white signal with the pattern generator.  
 Contrast } normal  
 Brightness }
2. Set the pattern generator raster signal to red.
3. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side.  
 (See Figures 3-1 through 3-3.)
4. Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1.)
5. Switch the raster signal to blue, then to green and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it.  
 (See Figure 3-4.)

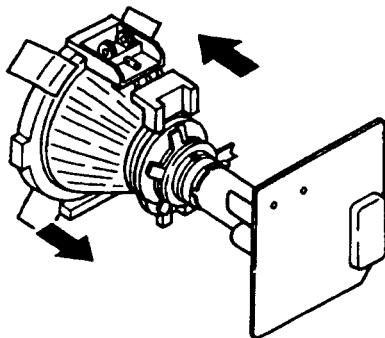


Fig. 3-1

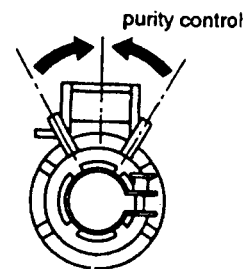


Fig. 3-2

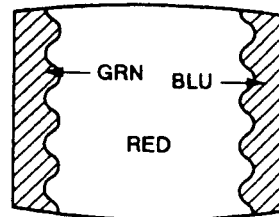


Fig. 3-3

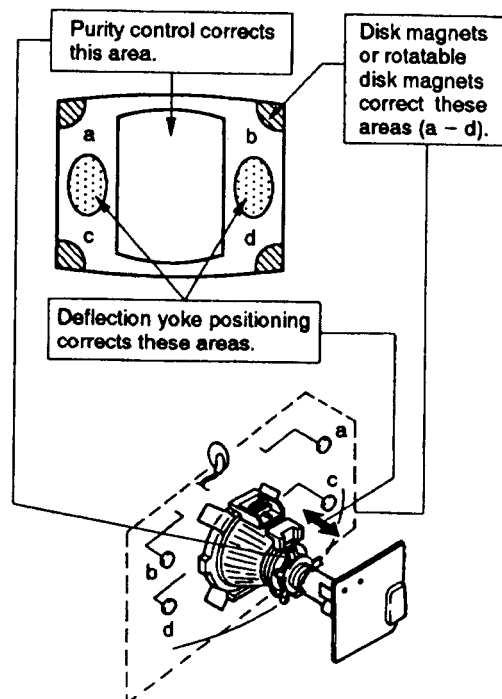


Fig. 3-4

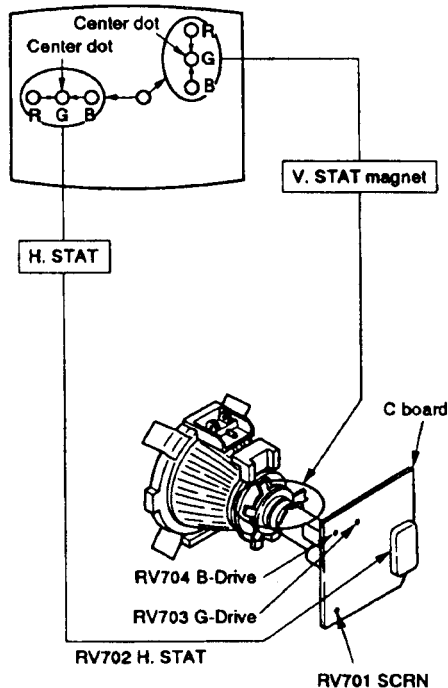


## 3-2. CONVERGENCE

### Preparations :

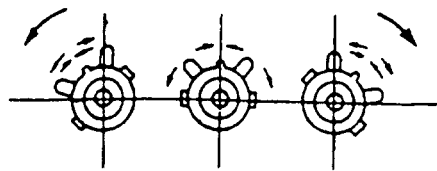
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

#### (1) Horizontal and vertical static convergence

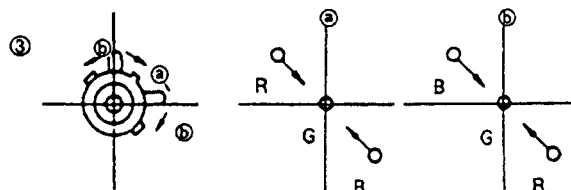
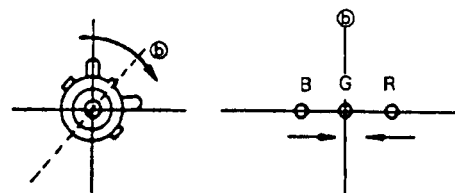
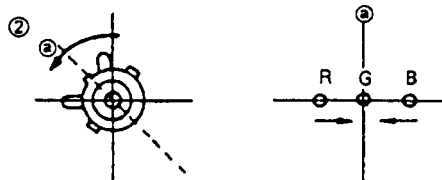
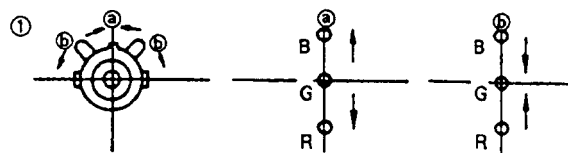


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor can not bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.  
(In this case, the H.STAT variable resistor and the V. STAT magnet influence each other's settings.)

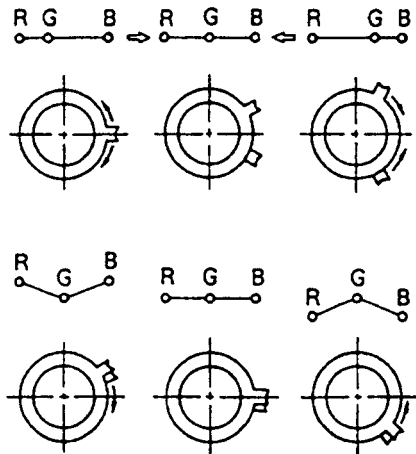
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



4. If the V.STAT magnet is moved in the direction of the ② and ③ arrows, the red, green, and blue points move as shown below.

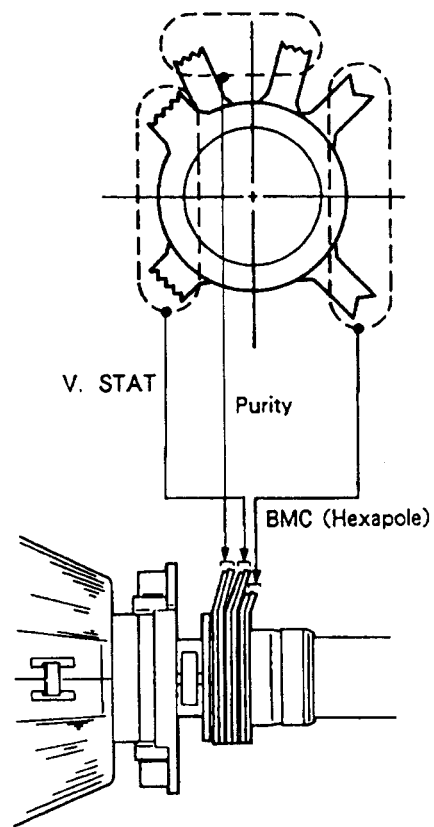


● Operation of BMC (Hexapole) Magnet



- The respective dot operations resulting from the operation of each magnet are not completely independent, so be sure to perform adjustment while tracking.

Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).



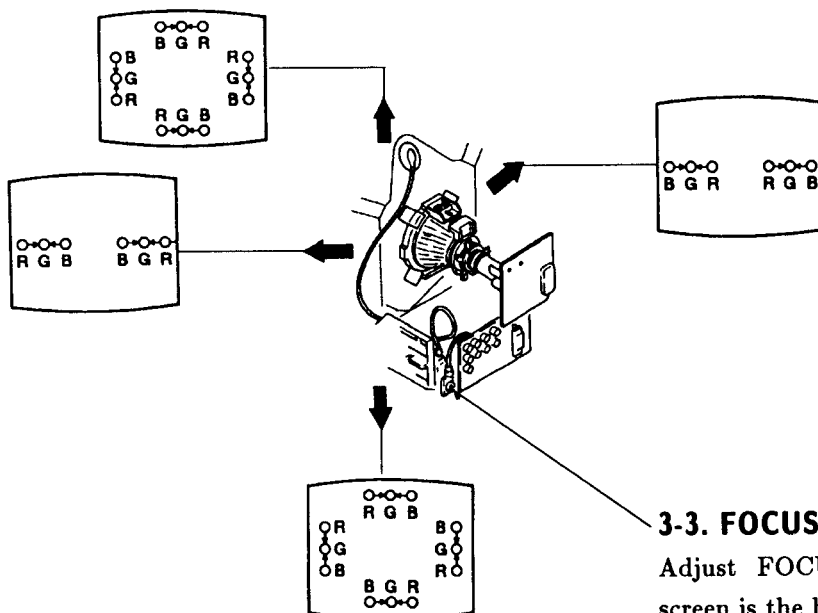
(2) Dynamic convergence adjustment

Preparations :

Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.

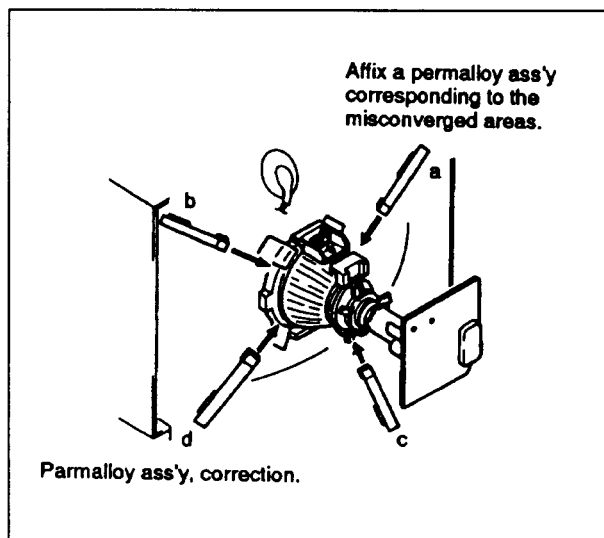
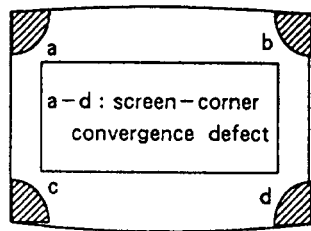
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.



**3-3. FOCUS**

Adjust FOCUS so that the whole screen is the best focus.

### (3) Screen corner convergence



### 3-4. WHITE BALANCE

#### [ Screen G2 setting ]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 170V DC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

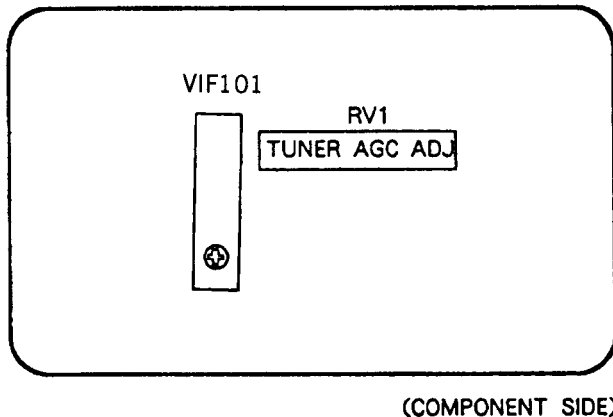
#### [ White balance adjustment ]

1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use the RV704 (B Drive) and RV703 (G Drive) to adjust white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

## SECTION 4 CIRCUIT ADJUSTMENTS

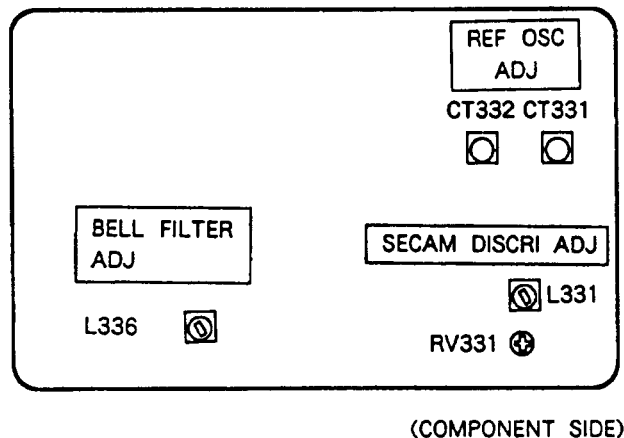
### 4-1. A BOARD ADJUSTMENT



#### TUNER AGC ADJUSTMENT (VIF101, RV1)

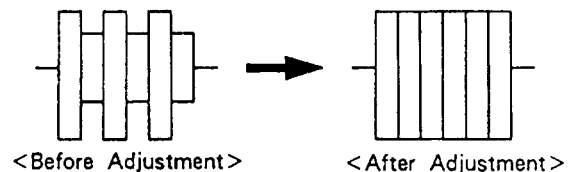
1. Align with an appropriate signal between stations.
2. Adjust RV1 so that snow noise and cross modulation just disappear from the picture.

### 4-2. B BOARD ADJUSTMENTS



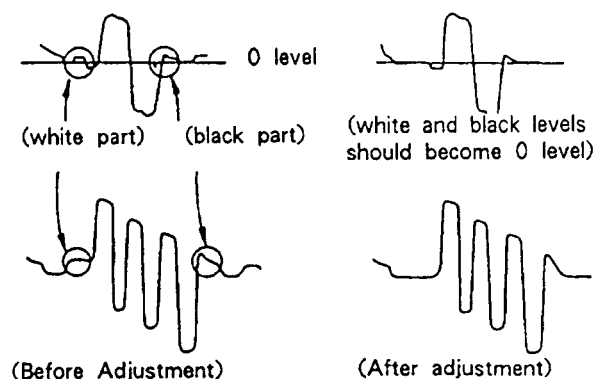
#### BELL FILTER ADJUSTMENT (L336)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to the emitter of Q335.
3. Adjust L336 so that the waveform is flat.



#### DISCRIMINATION ADJUSTMENT (RV331 and L331)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to pin ① of IC331.
3. Adjust RV331 so that the white and black sections of the waveform at pin ① come to the 0 level.
4. Connect the oscilloscope to pin ③ of IC331.
5. Adjust L331 so that the white and black sections of the waveform at pin ③ come to the 0 level.



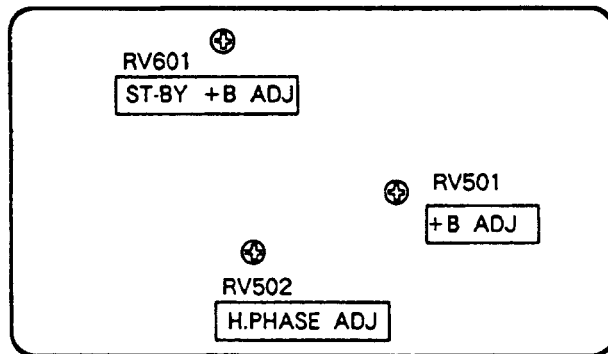
#### REFERENCE OSCILLATOR ADJUSTMENT (CT332 8.8MHz)

1. Input a PAL color bar signal.
2. Ground pin ⑰ of the IC331.
3. Adjust CT332 to obtain synchronization.

#### REFERENCE OSCILLATOR ADJUSTMENT (CT331 7.16MHz)

1. Input an NTSC color bar signal.
2. Ground pin ⑰ of IC331.
3. Adjust the CT331 to obtain synchronization.
4. Remove the jumper grounding pin ⑰ of IC331.

### 4-3. D BOARD ADJUSTMENTS



#### +B ADJUSTMENT (RV501)

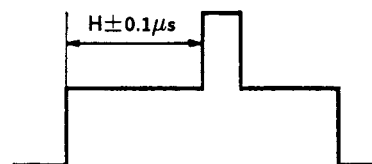
1. Connect the digital multimeter to TP91.
2. Adjust RV501 to obtain  $135 \pm 0.2V$ .

#### ST-BY +B ADJUSTMENT (RV601)

1. Put the system into  $\odot$  standby mode (remote commander).
2. Connect the digital multimeter to TP91.
3. Adjust RV601 to obtain  $135 \pm 3V$ .
4. Take the system out of  $\odot$  standby mode (remote commander).

#### H.PHASE ADJUSTMENT (RV502)

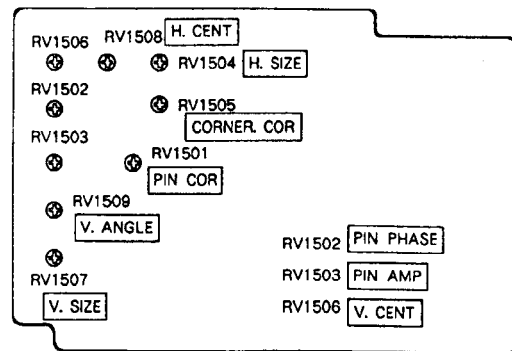
1. Input a PAL color bar signal.
2. Set the picture and brightness controls to their normal levels.
3. Set RV1508 (H.CENT) to its mechanical center.
4. Connect the oscilloscope to pin ⑪ (SCP) of IC 501.
5. Rotate RV502 to adjust to  $H \pm 0.1\mu s$ .



Standard of H.Phase

Model Size	H
21"	$5.6\mu s$
25"	$5.1\mu s$
29"	$5.5\mu s$

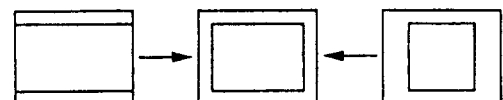
### 4-4. J1 BOARD ADJUSTMENTS



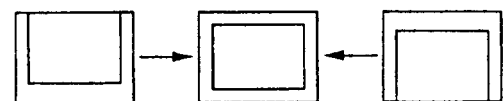
#### RV1508 H. CENT (HORIZONTAL CENTER)



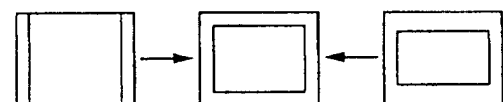
#### RV1504 H. SIZE (HORIZONTAL SIZE)



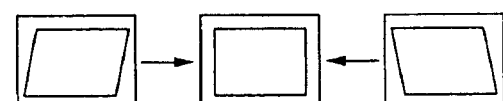
#### RV1506 V. CENT (VERTICAL CENTER)



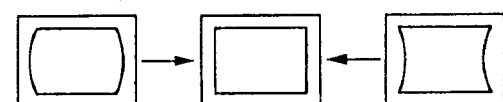
#### RV1507 V. SIZE (VERTICAL SIZE)



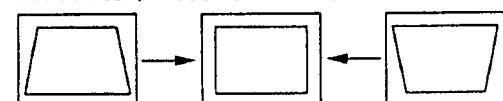
#### RV1509 V. ANGLE (VERTICAL ANGLE)



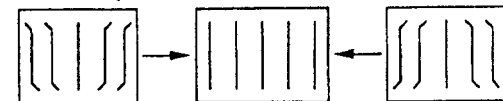
#### RV1503 PIN AMP (PINCUSHION AMPLIFIER)



#### RV1502 PIN PHASE (PINCUSHION PHASE)



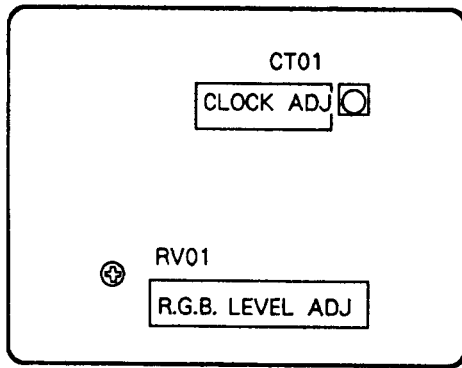
#### RV1501 PIN. COR (PINCUSHION CORRECT)



#### RV1505 CORNER COR (CORNER CORRECT)



## 4-5. V BOARD ADJUSTMENTS



### CLOCK ADJUSTMENT (CT01)

1. Remove the pin ③ of V-01 connector.
2. Put the system into text mode.
3. Adjust CT01 so that the picture does not move.

### RGB LEVEL ADJUSTMENT (RV01)

1. Maximize the picture setting.
2. Adjust RV01 so that the RGB output is 0.75V.

## 4-6. SECONDARY ADJUSTMENT

### SUB BRIGHTNESS ADJUSTMENT

1. Set the system to receive a test pattern.
2. Press  $\rightarrow \bullet \leftarrow$  on the remote commander to put the system into normal mode.
3. Switch off the power.
4. While depressing the adjusting buttons + and - simultaneously, turn on the power. (SUB mode is obtained)
5. Minimize the  $\bullet$  contrast setting.
6. Adjust the  $\odot$  brightness control so that the gray scale 0 IRE section is cut off completely and the 20 IRE section is barely glowing.
7. Depress the  $\diamond$  (store) button of the remote commander.  
(SUB mode is released)

If there is no test color pattern

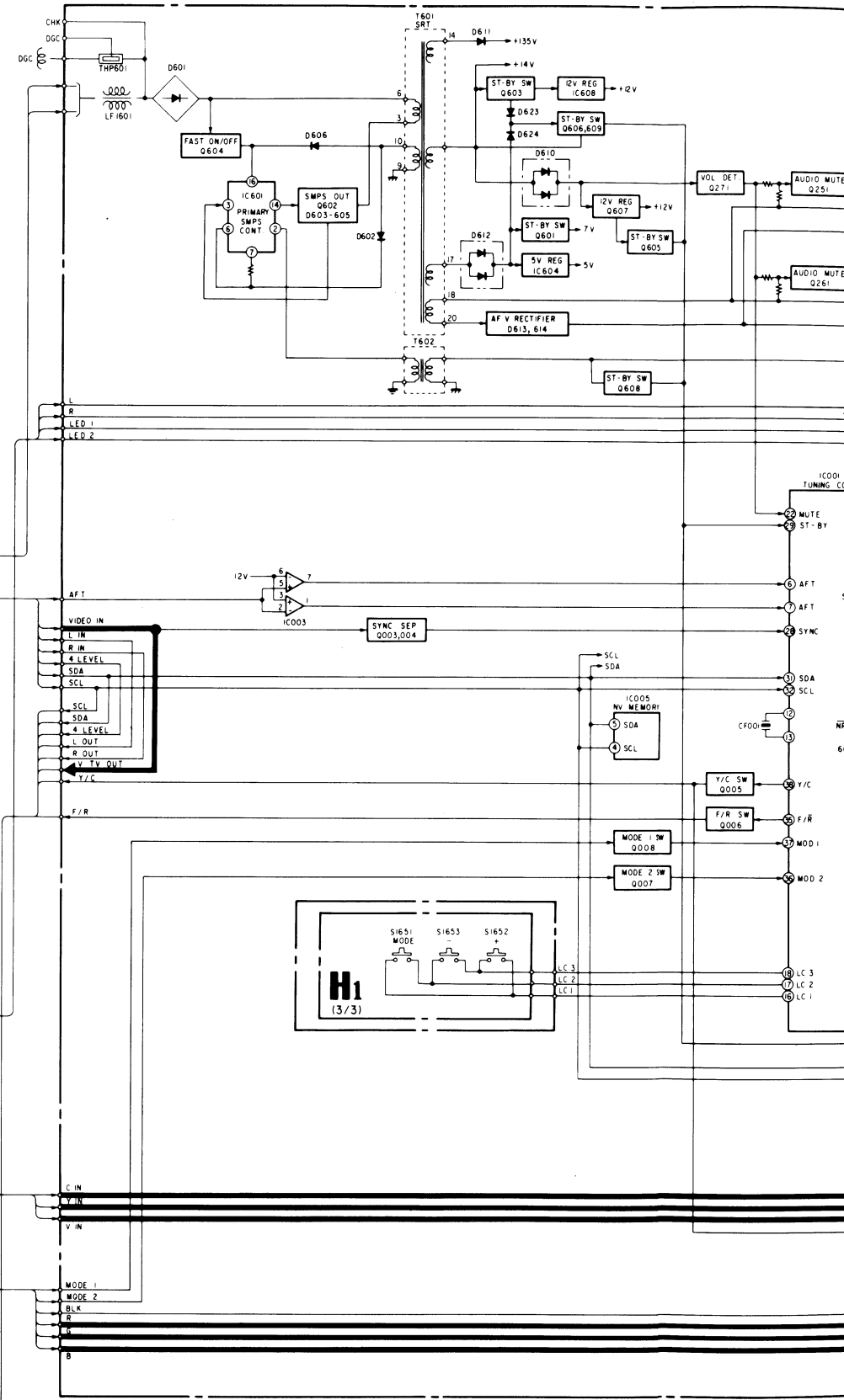
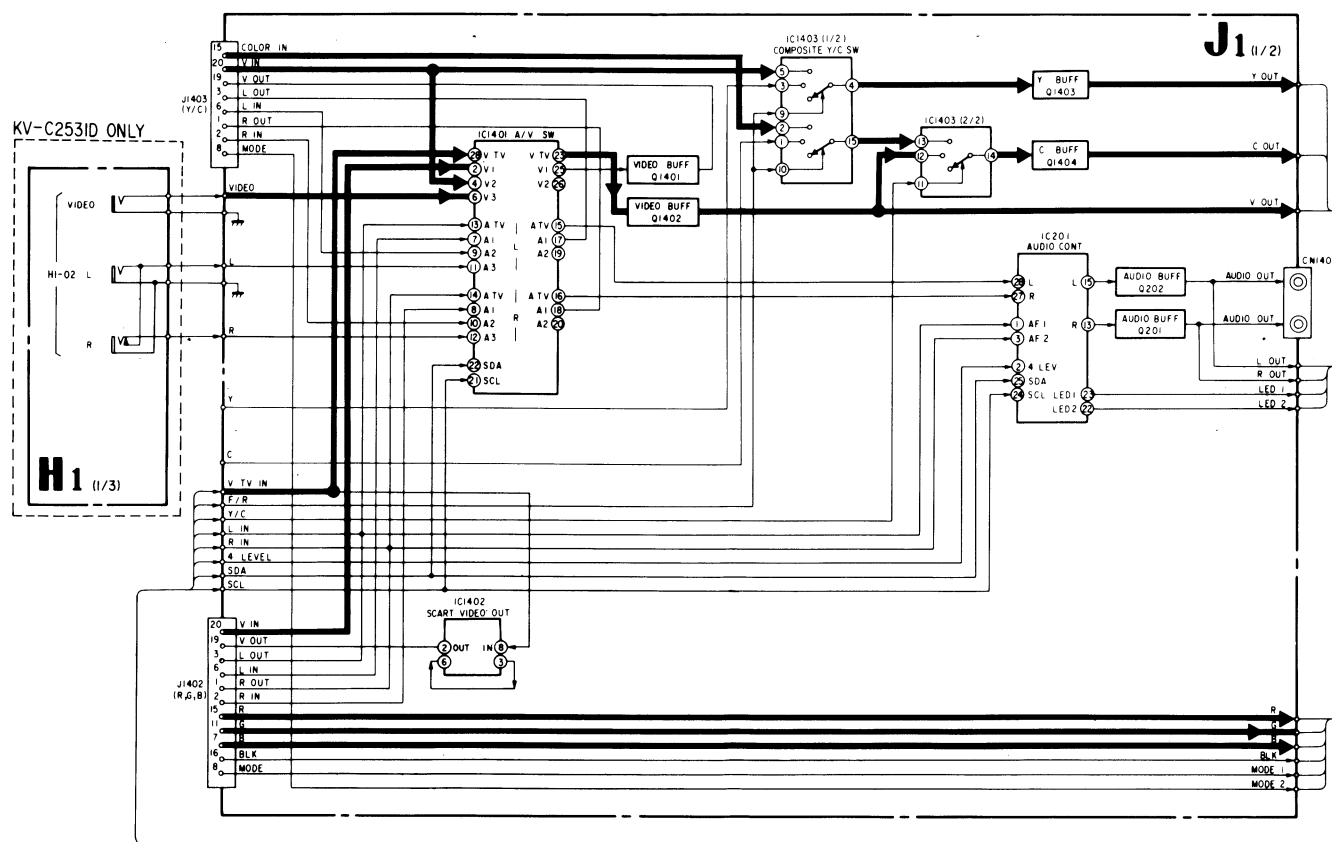
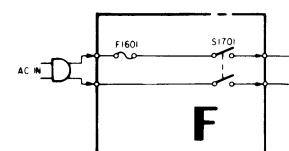
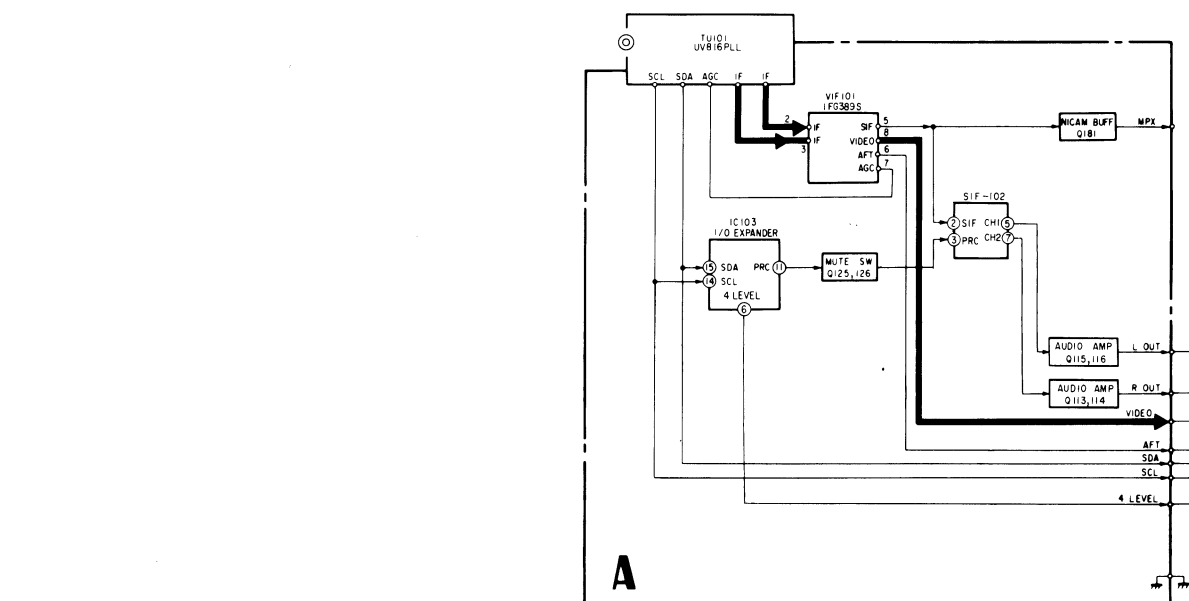
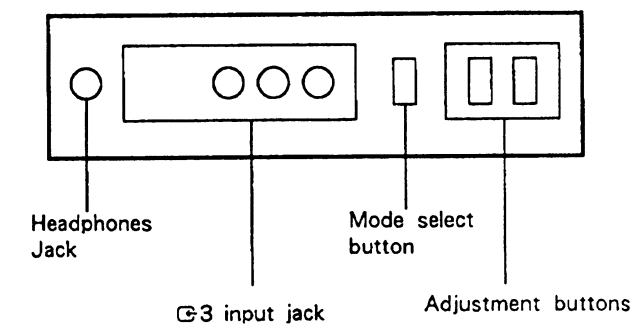
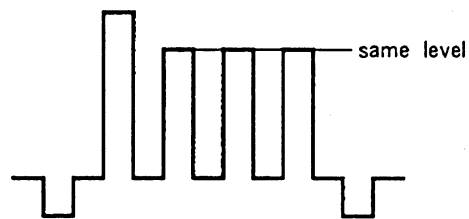
1. Set the system to receive a color pattern.
2. Press on the remote commander to put system into normal mode.  
Set the  $\odot$  color to its normal state.
- 3-5. are the same as above.
6. Since 20 IRE is nearly blue, adjust the  $\odot$  brightness control so that the blue barely glows.
7. is the same as above.
8. Press  $\rightarrow \bullet \leftarrow$  on the remote commander to put the system into normal mode.

## SECTION 5 DIAGRAMS

### 5-1. BLOCK DIAGRAM

## SUB COLOR ADJUSTMENT

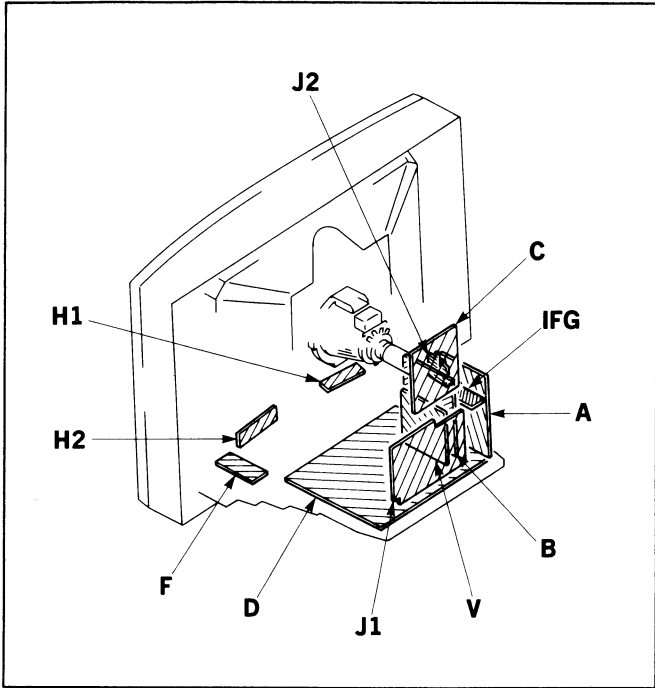
1. Set the system to receive color bars.
2. Press  $\rightarrow \bullet \leftarrow$  on the remote commander to put the system into normal mode.
3. Cut off the power.
4. While depressing the adjustment buttons + and - simultaneously, turn on the power. (SUB mode is obtained)
5. Adjust the color control so that the B out waveform ( pin ② of C board connector CNC72) is as shown in the figure below.
6. Depress the  $\diamond$  (store) button of the remote commander. (SUB mode is released)








5-2. CIRCUIT BOARDS LOCATION



Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.






Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: *	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note :

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  
 $\text{pF}$  :  $\mu\mu\text{F}$  50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm  
Rating electrical power : 1/4W

- Chip resistor is in 1/10W.
- All resistors are in ohms.  $\text{k}\Omega = 1000\Omega$ ,  $\text{M}\Omega = 1000\text{k}\Omega$
-  : nonflammable resistor.
-  : fusible resistor.
- $\Delta$  : internal component.
-  : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B.unless otherwise noted.
- All voltages are in V.
- Readings are taken with a  $10\text{M}\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
-  : B + line.
-  : signal path.

H1

[ CONTROL SW,  
AV INPUT, HEADPHONE ]

H2

[ SIRCS RECEIVER, INDICATOR ]

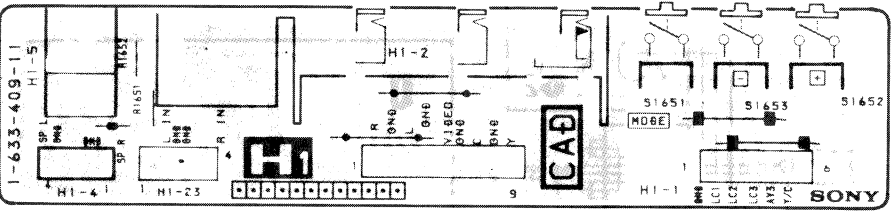
F

[ LINE FILTER, DGC ]

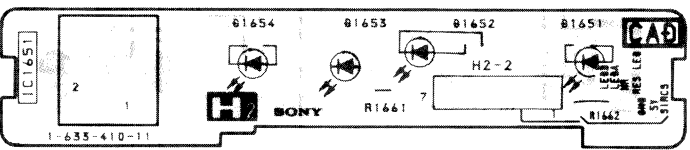
5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

—Conductor Side—

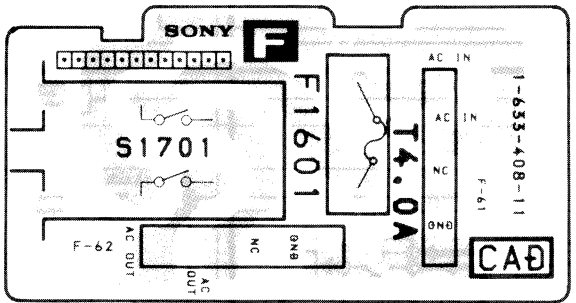
—H1 Board—



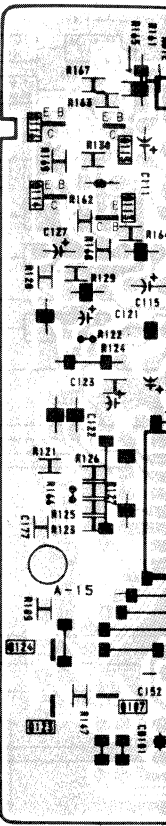
—H2 Board—



—F Board—



—A Board—



[TUNER, SIF, VIF]

A

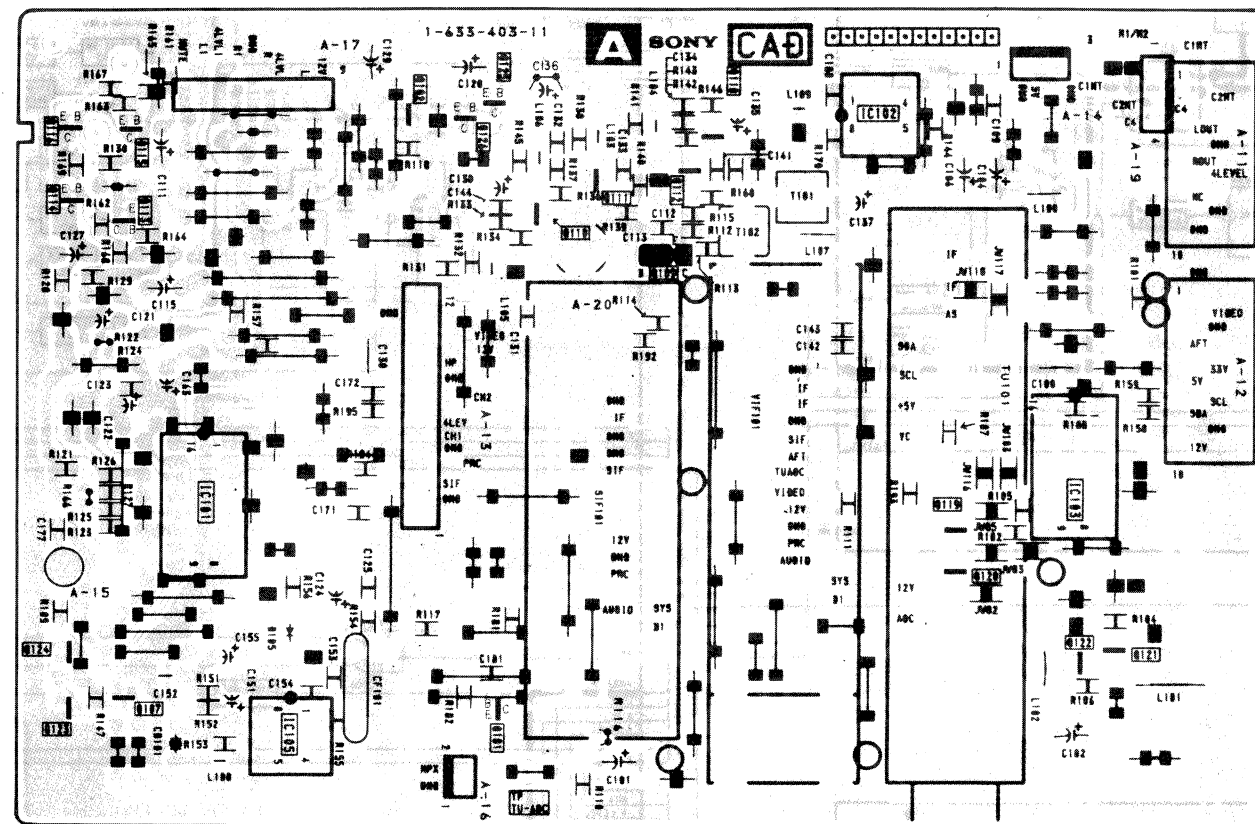
J1

[AUDIO CONTROL, AV INPUT Y/C INPUT,  
SCAR VIDEO OUT EAST-WEST CORRECTION]

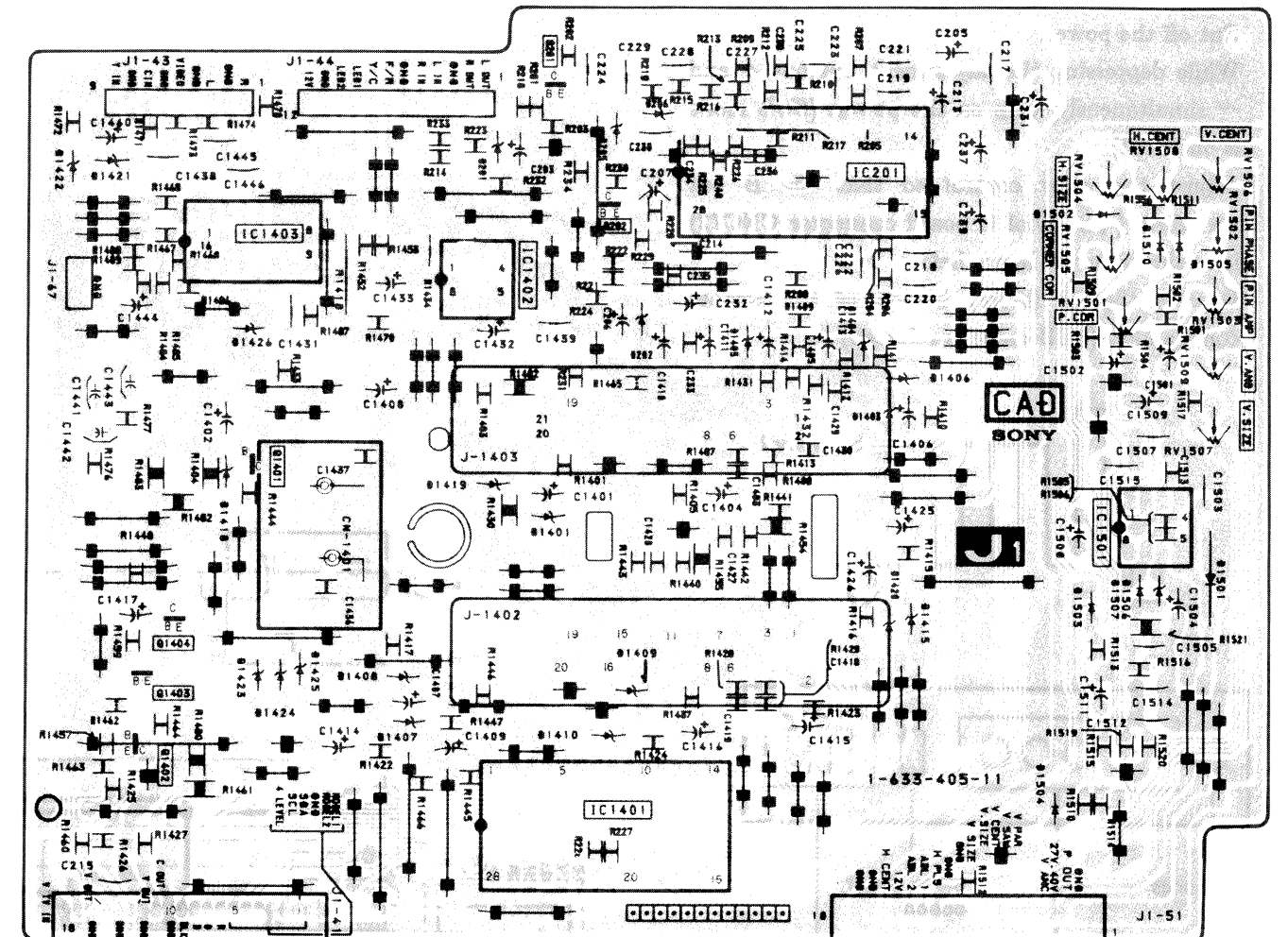
J2

[SPEAKER TERMINAL]

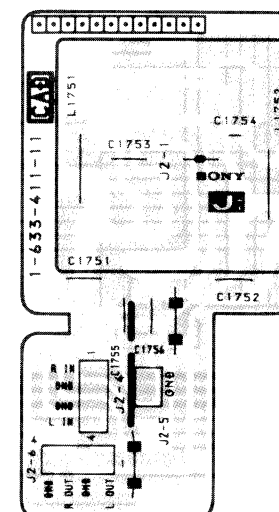
—A Board—



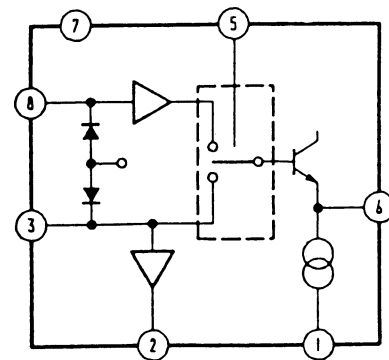
—J1 Board—



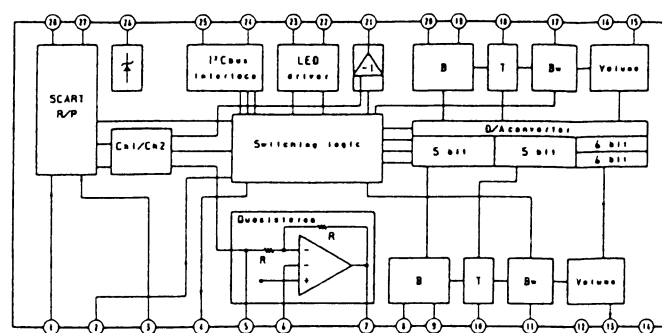
—J2 Board—



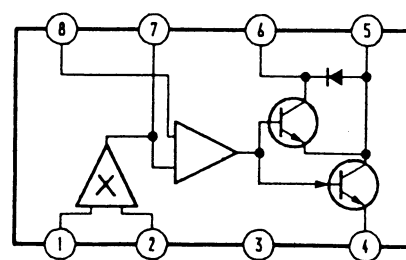
J1 BOARD IC1402 TEA2014A



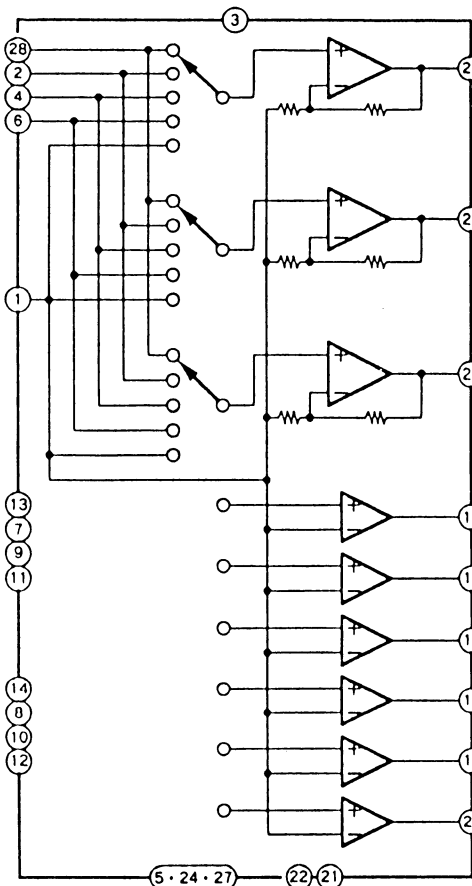
J1 BOARD IC201 TDA6200



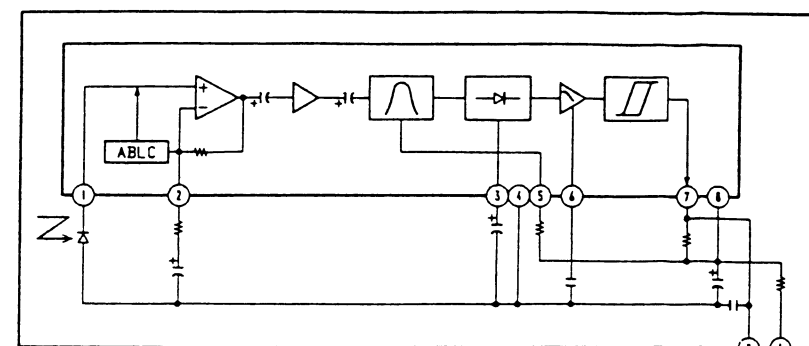
J1 BOARD IC1501 TEA2031



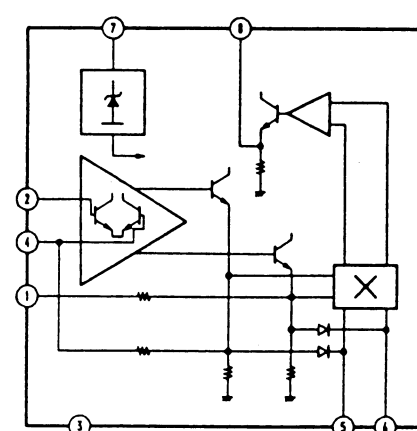
J1 BOARD IC1401 CXA1114P



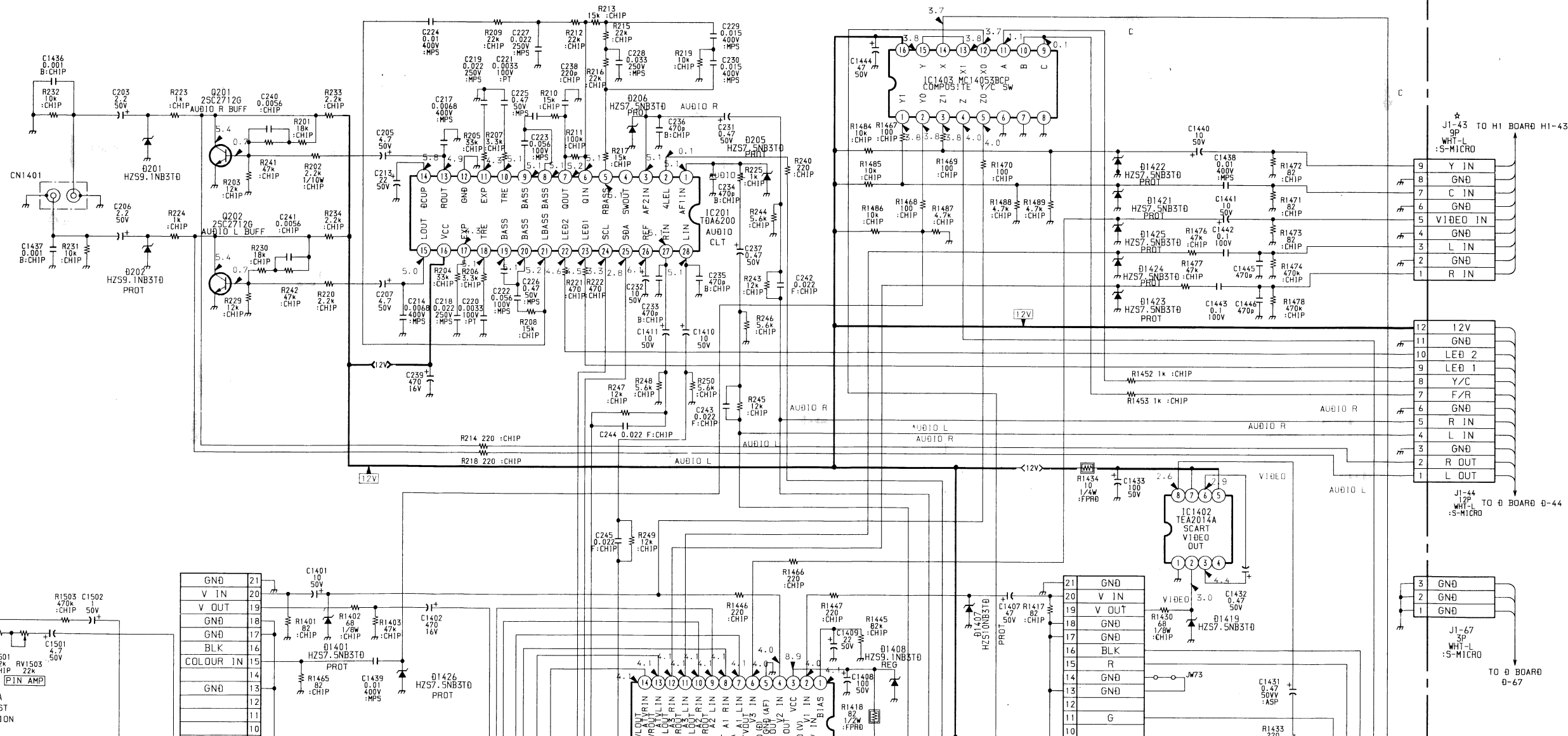
H2 BOARD IC1651 BA1387

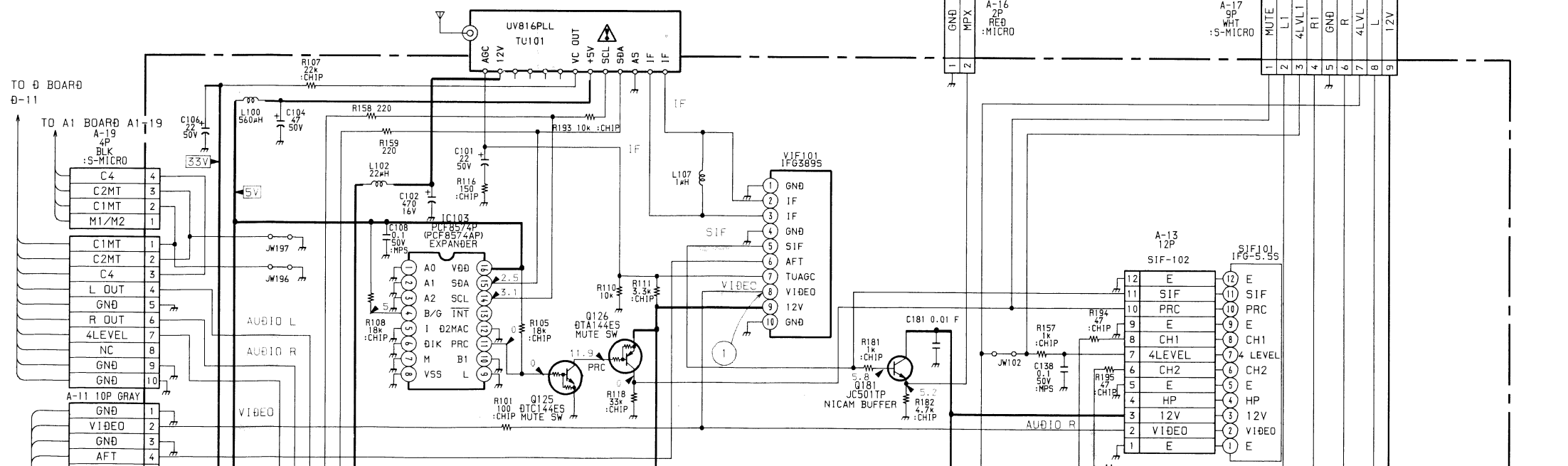
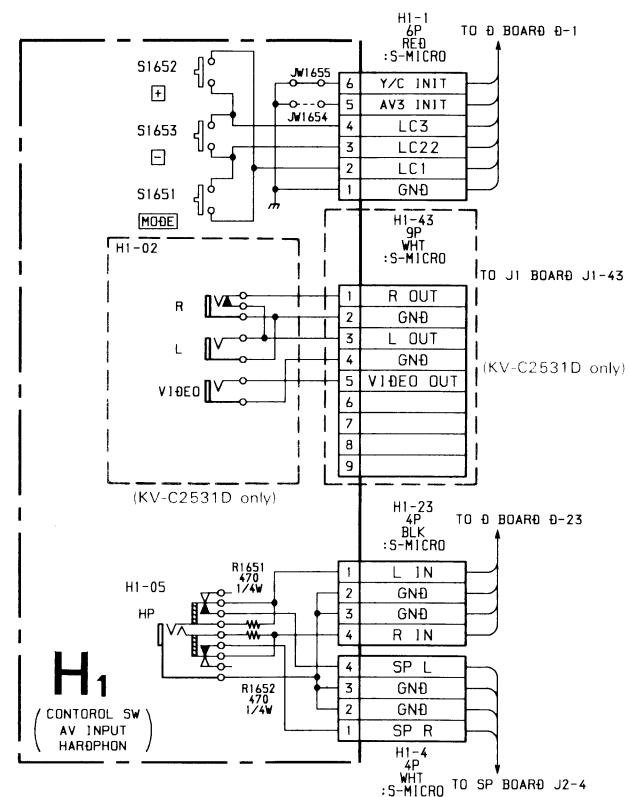


A BOARD IC105 TBA129

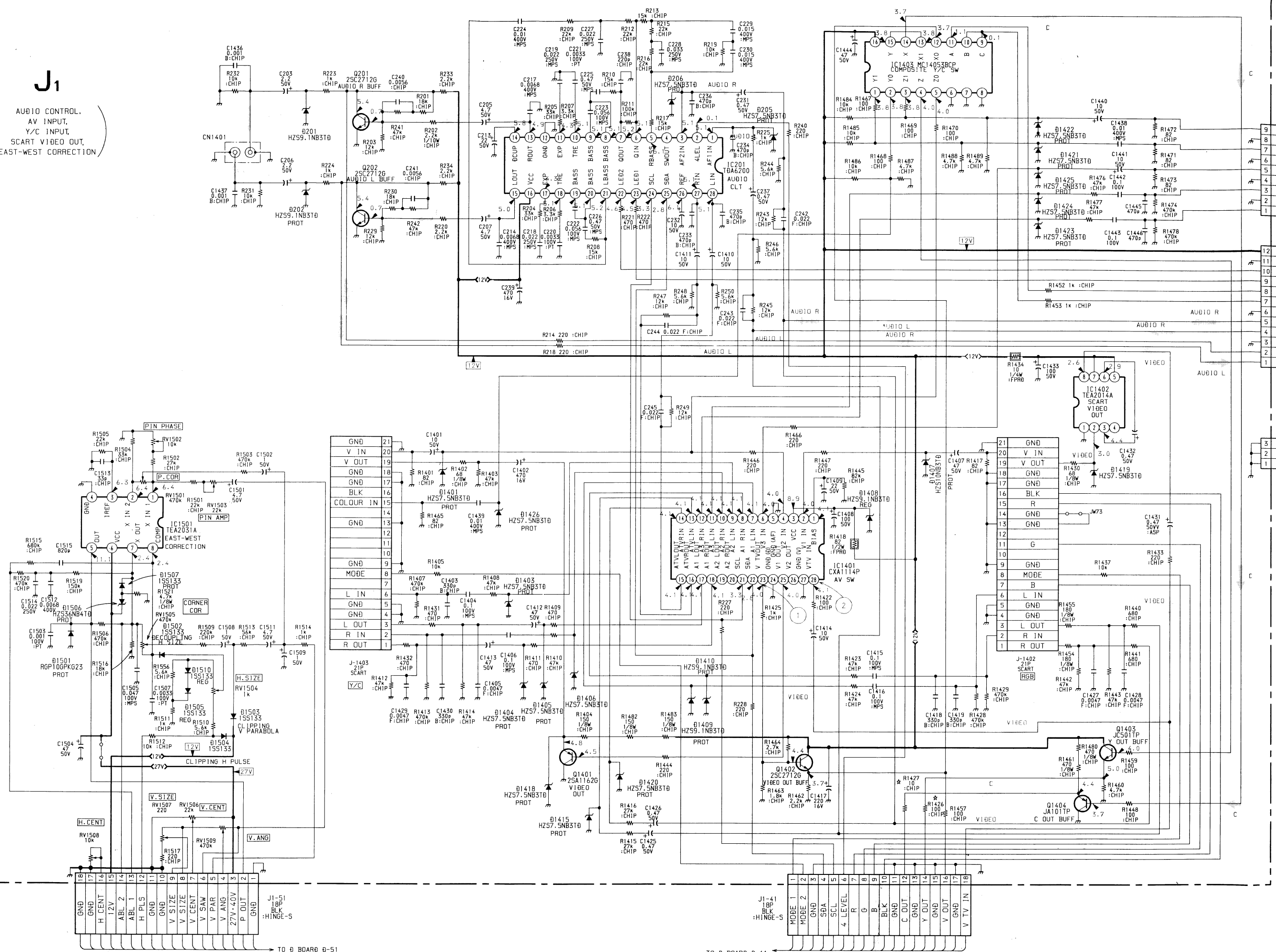


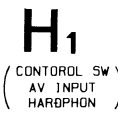
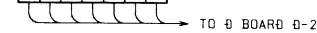
J1  
AUDIO CONTROL,  
AV INPUT,  
Y/C INPUT,  
SCART VIDEO OUT,  
EAST-WEST CORRECTION



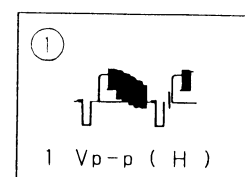


( AUDIO CONTROL,  
AV INPUT,  
Y/C INPUT,  
SCART VIDEO OUT,  
EAST-WEST CORRECTION )

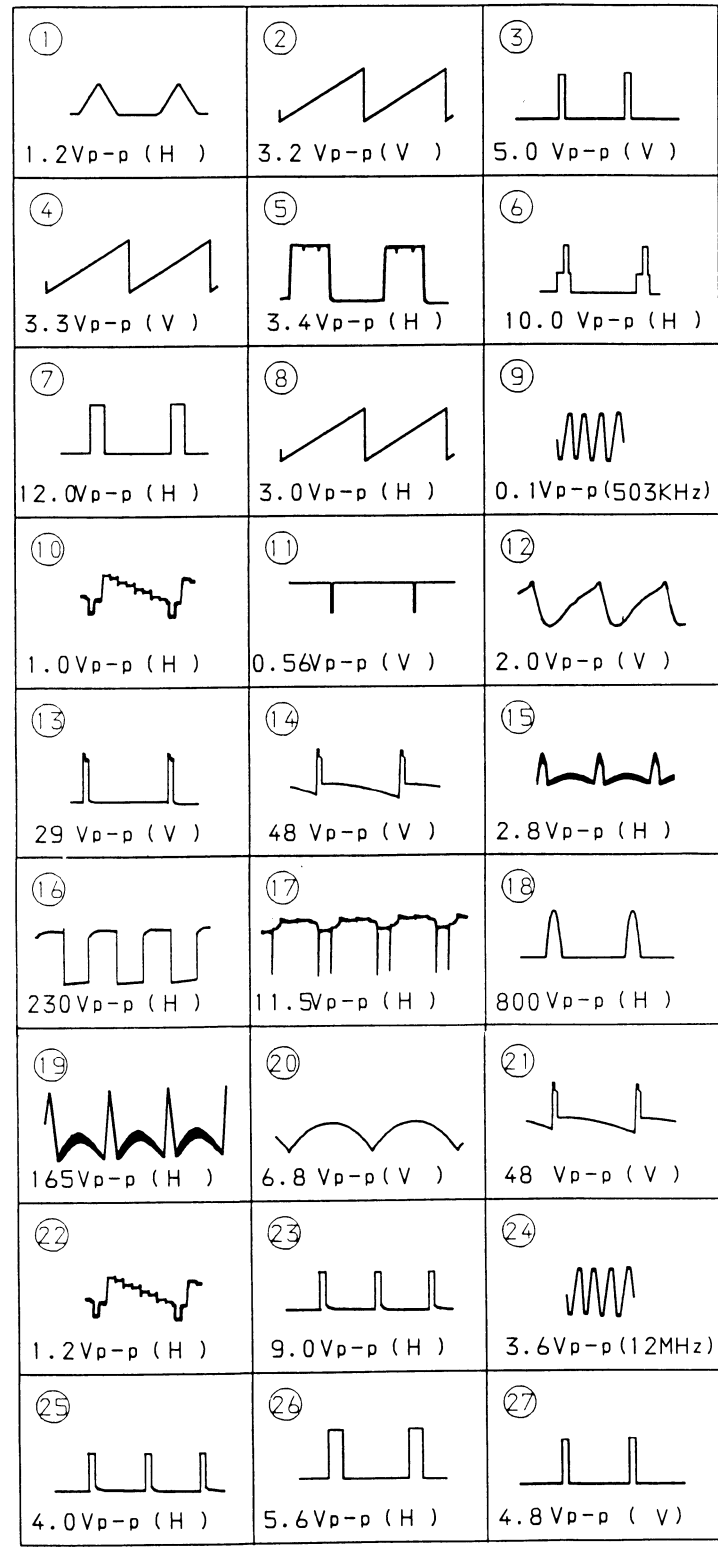




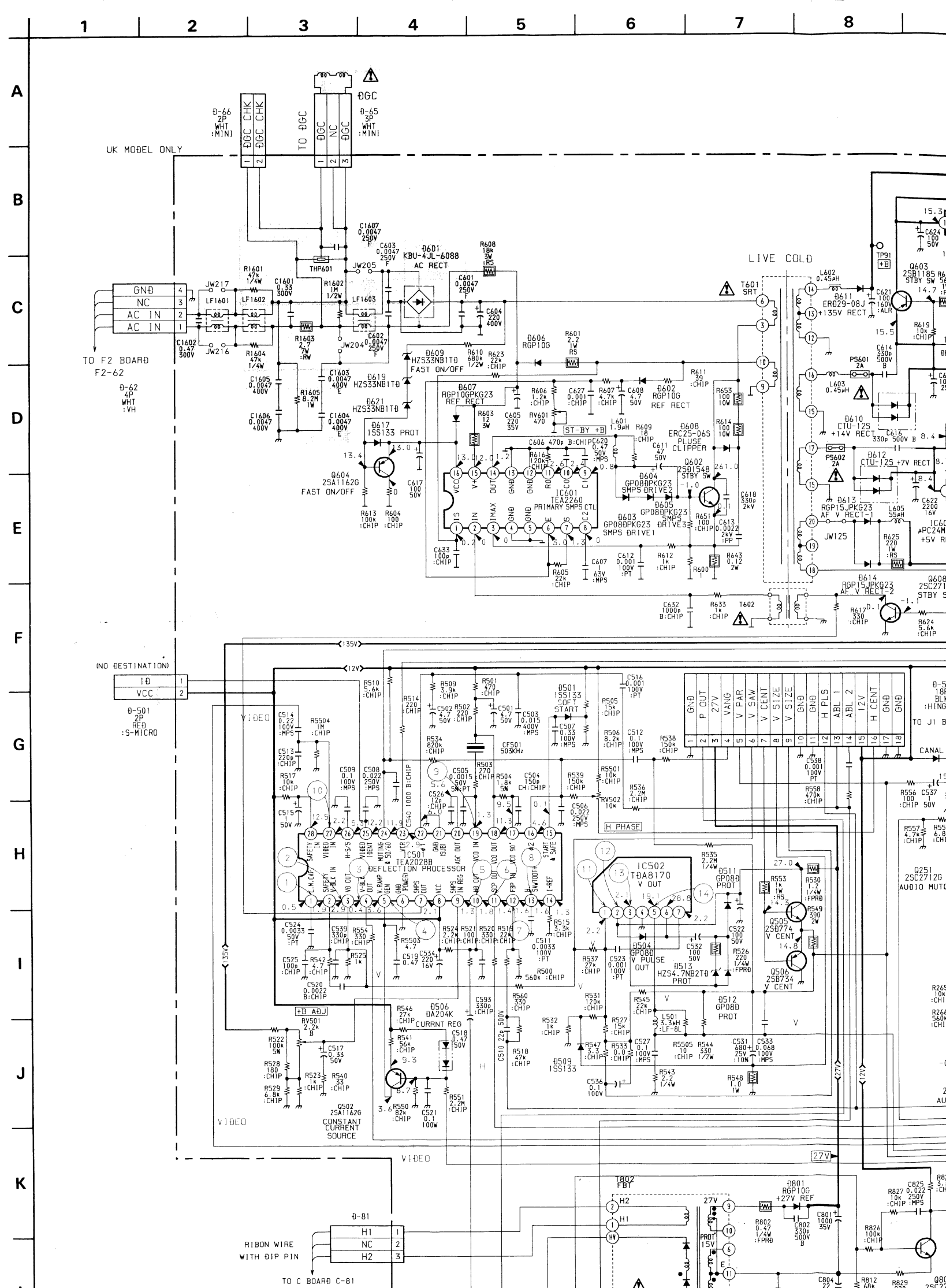
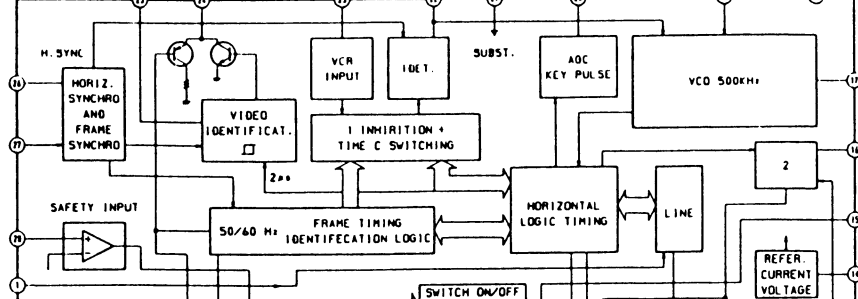
- **WAVEFORMS A BOARD**



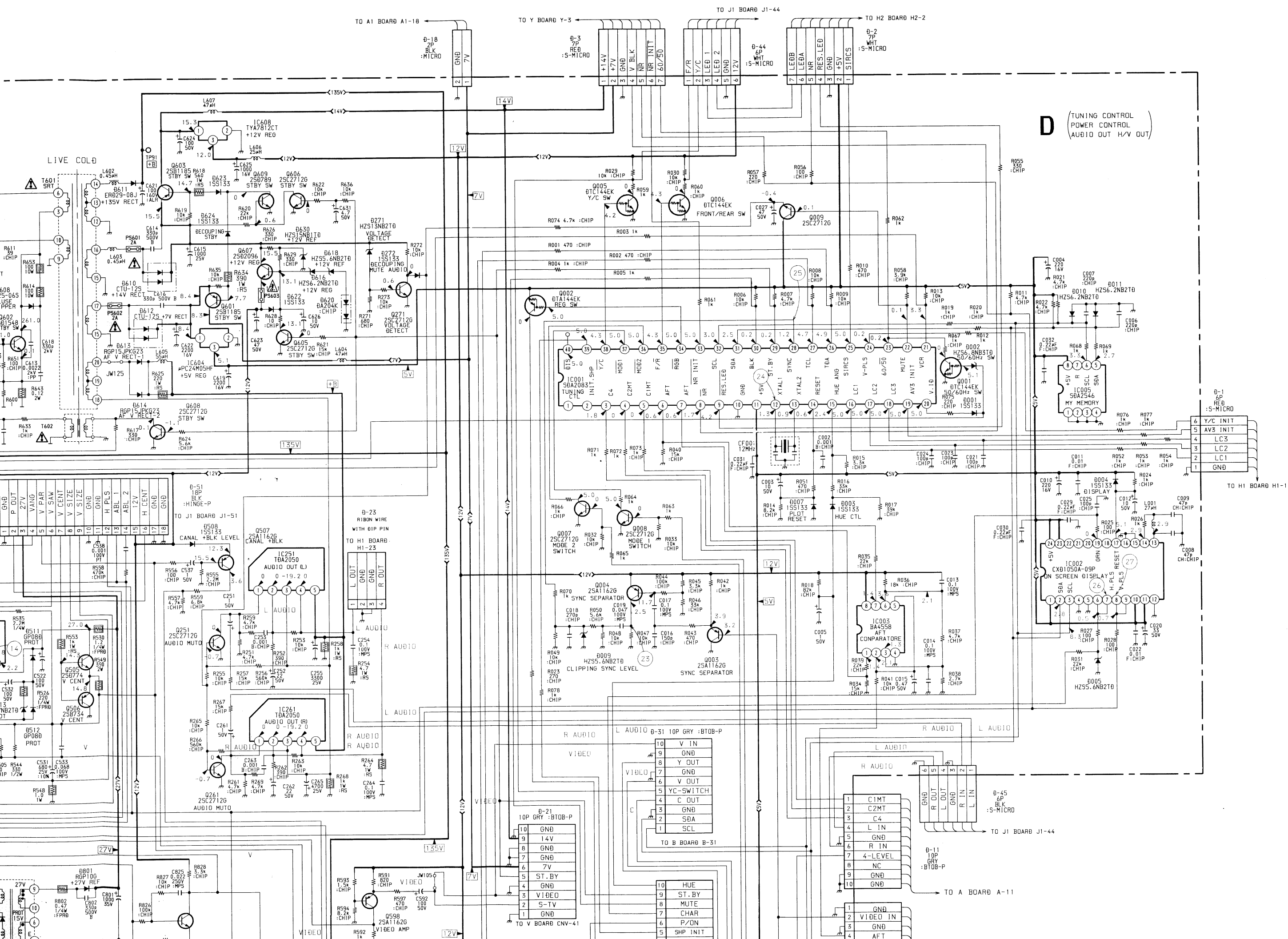
## ● WAVEFORMS D BOARD



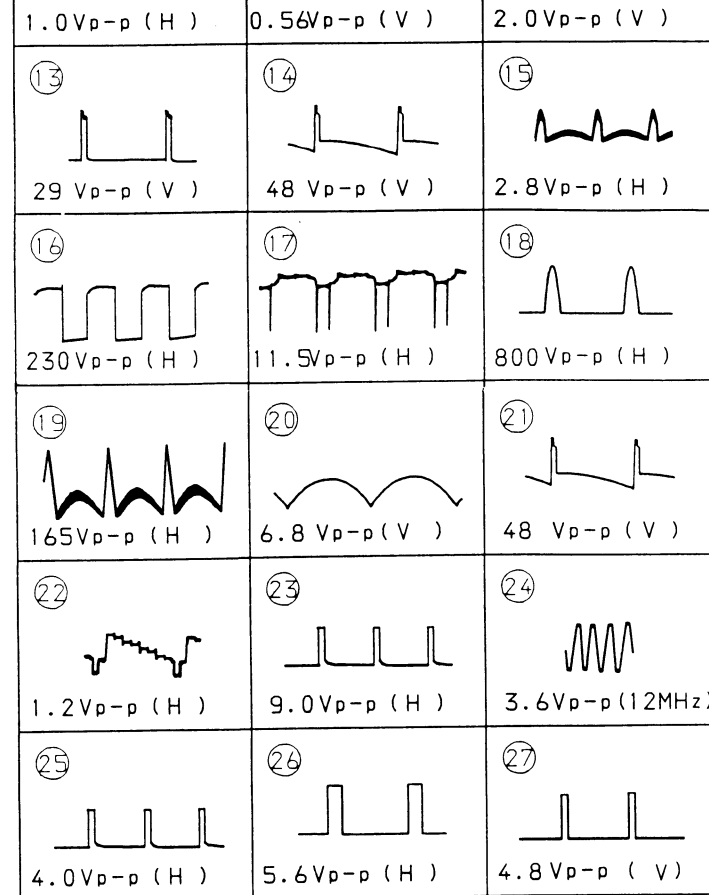
D BOARD IC301 TEA2020B



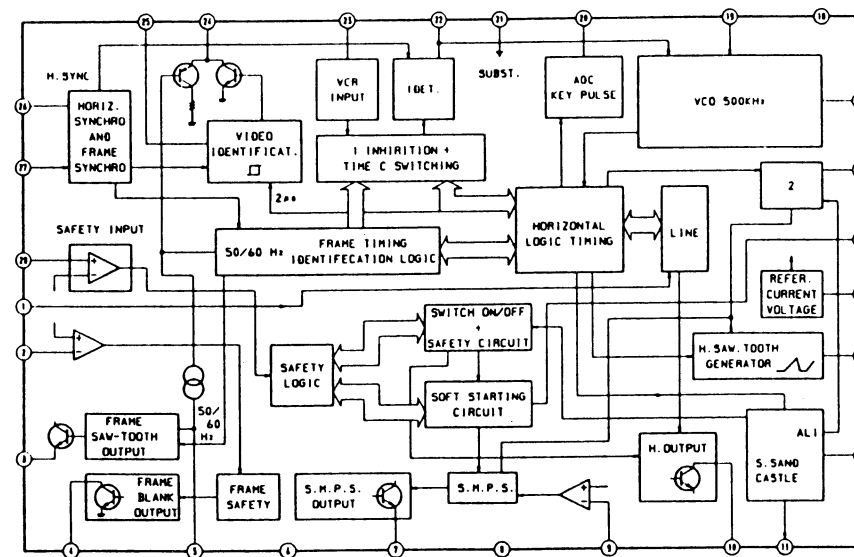




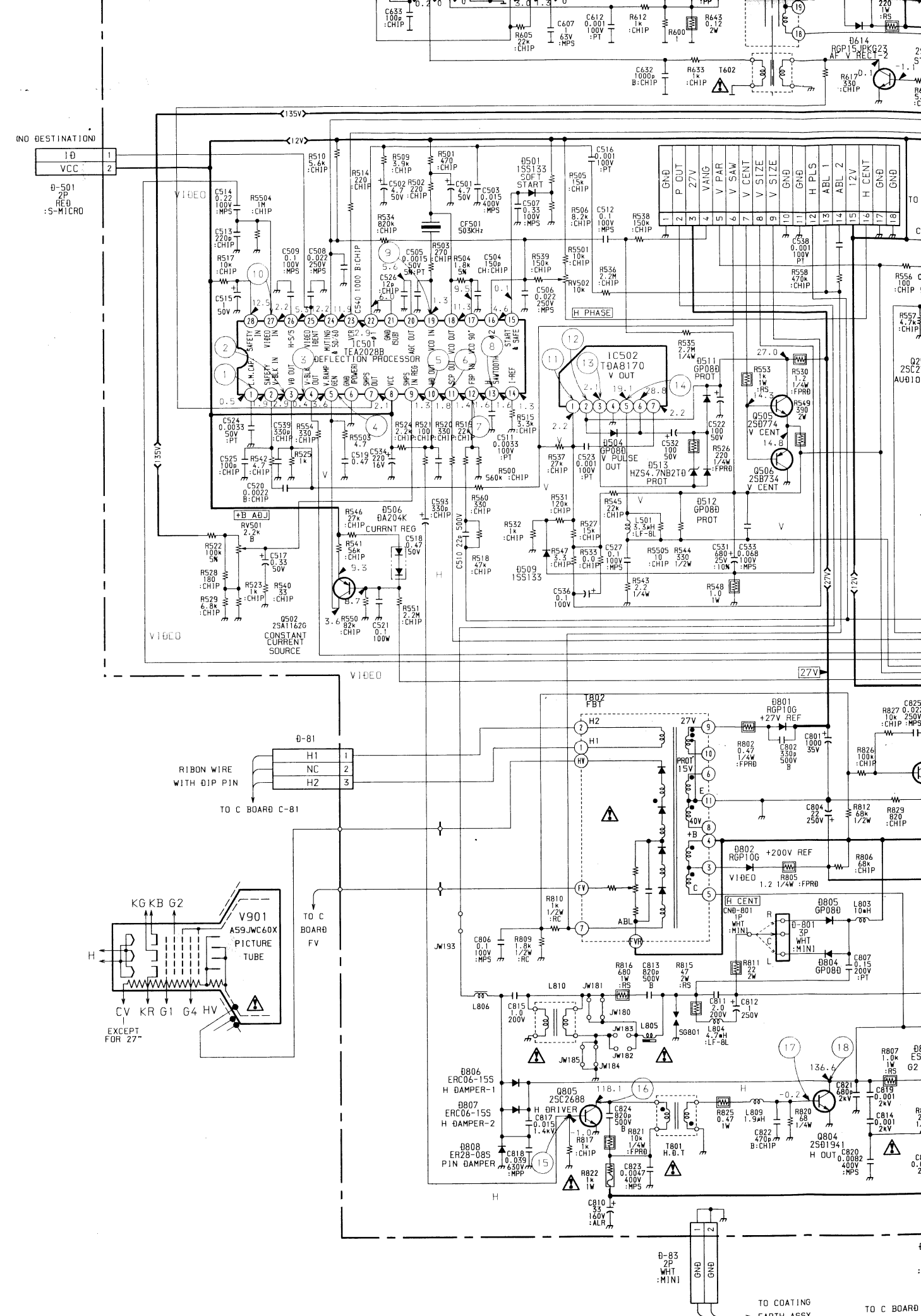
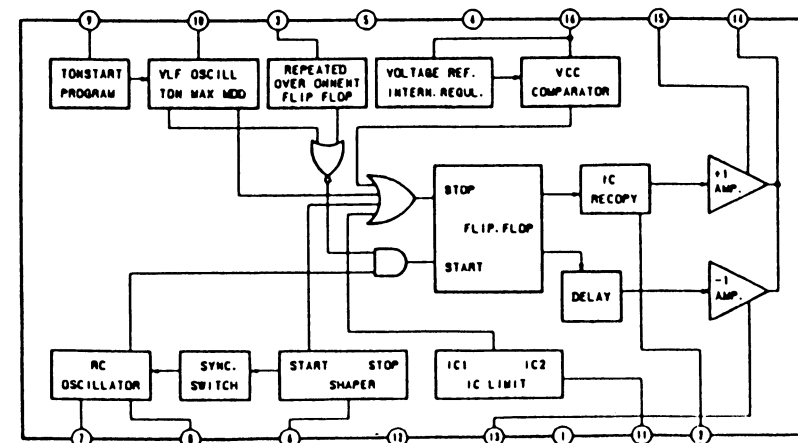


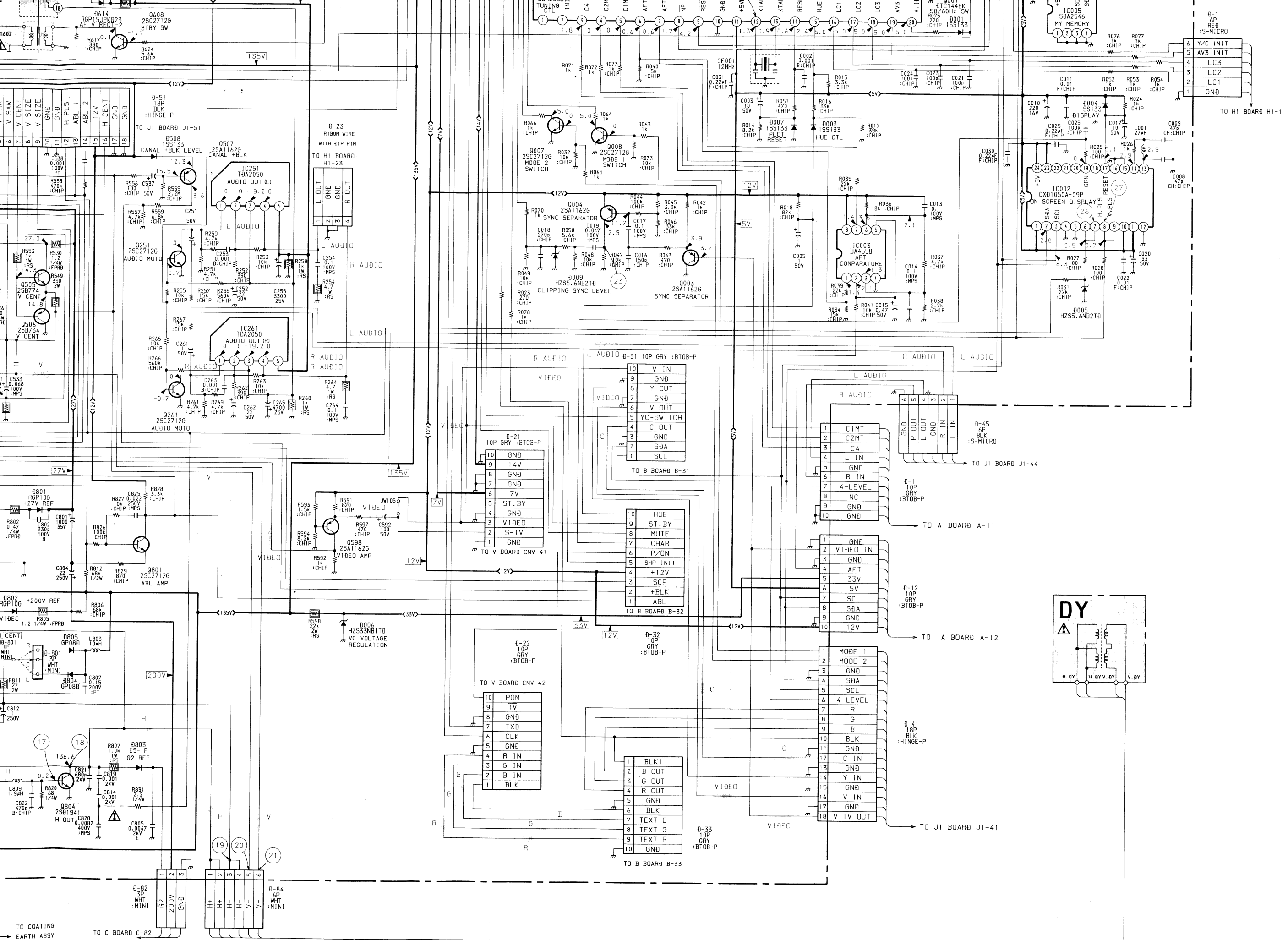


D BOARD IC501 TEA2020B



D BOARD IC601 TEA2260



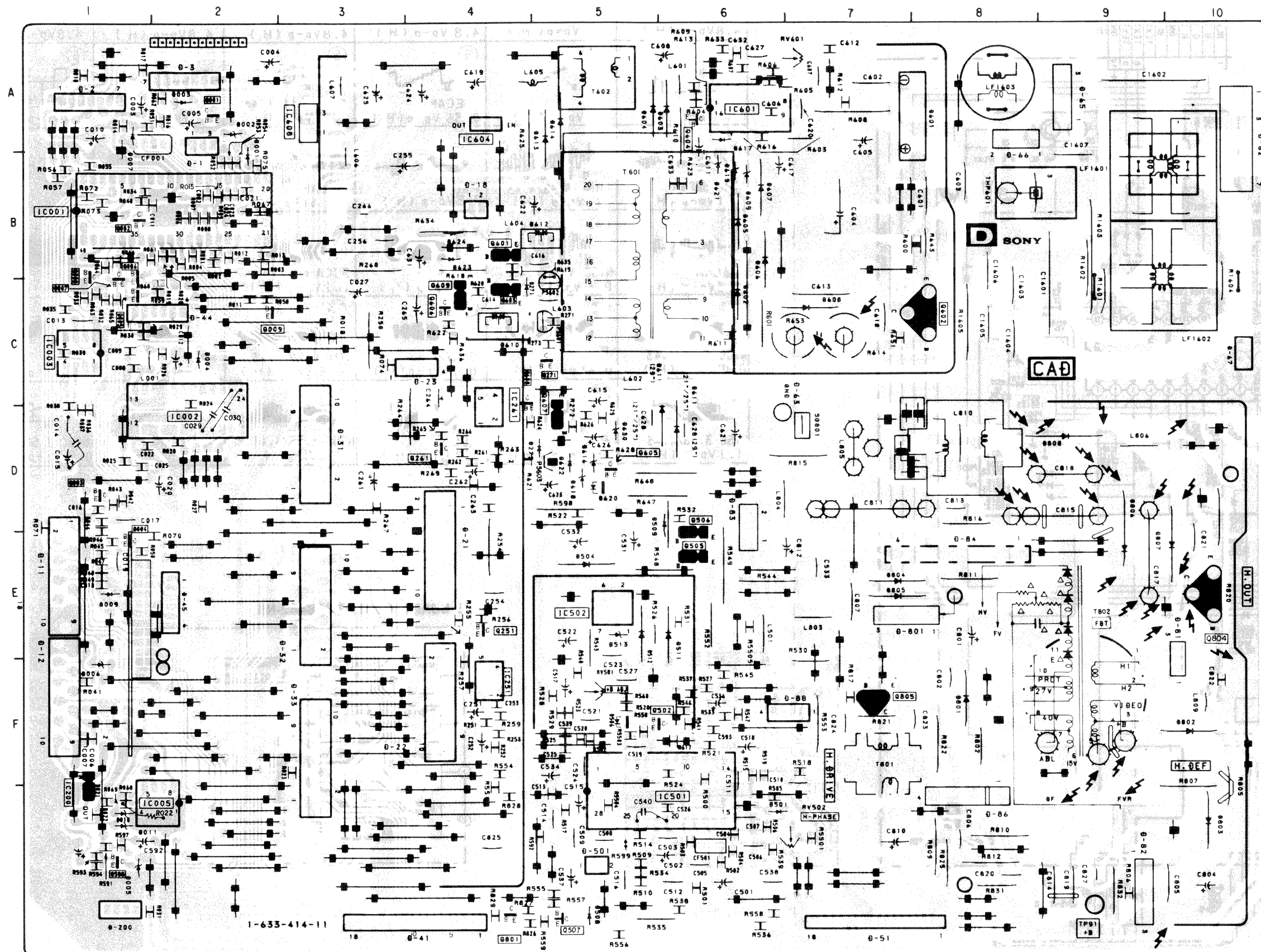


[TUNING CONTROL, POWER CONTROL,  
AUDIO OUT, H/V OUT]

D

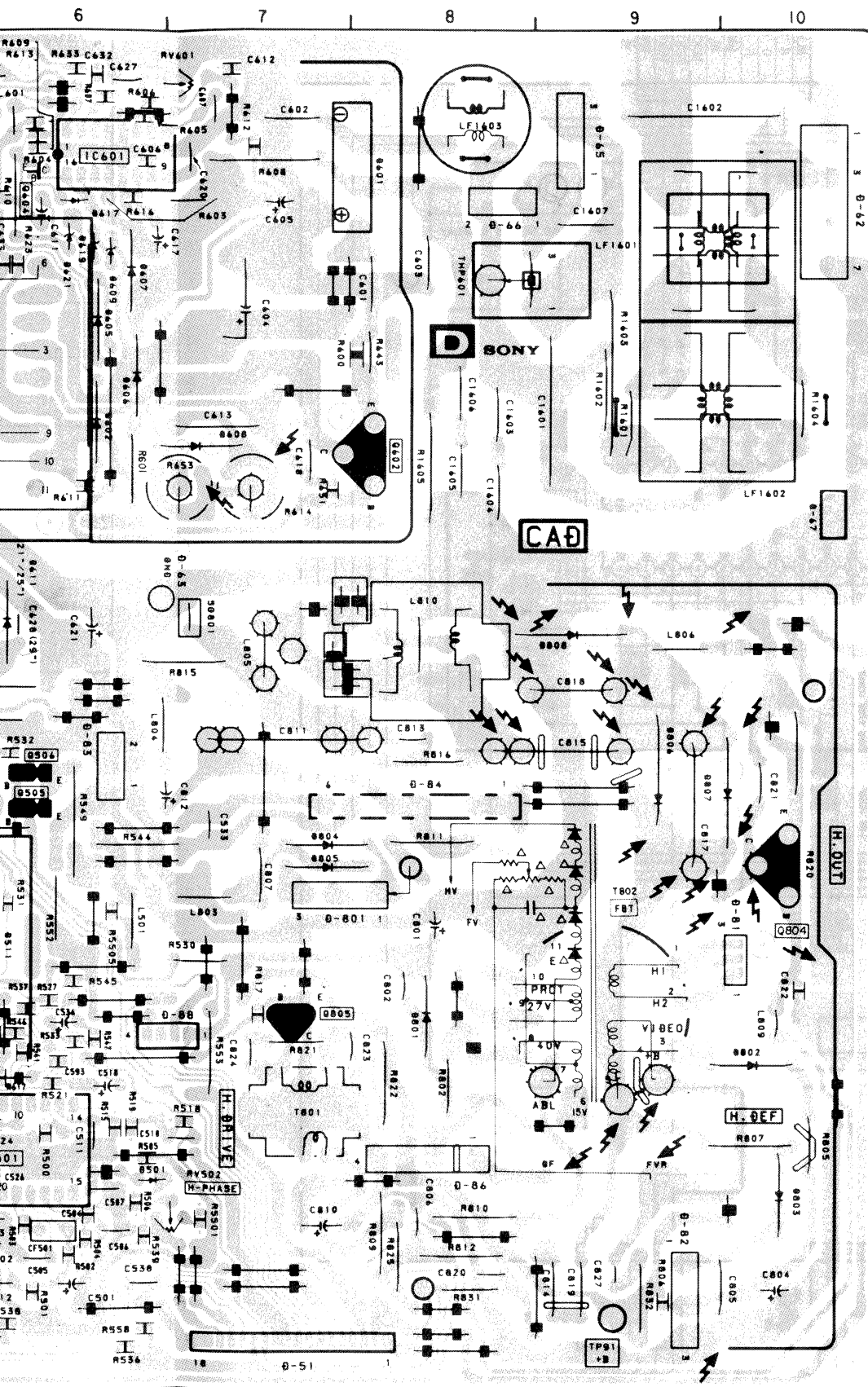
D

-D Board-



IC		D006	F-1
IC001	B-2	D007	A-1
IC002	D-2	D009	E-1
IC003	C-1	D010	G-1
IC005	G-2	D011	G-1
IC251	F-4	D271	C-4
IC261	C-4	D272	D-5
IC501	G-6	D501	G-6
IC502	E-5	D504	E-5
IC601	A-6	D506	F-5
IC604	A-4	D508	G-5
IC608	A-3	D509	D-6
		D511	E-6
		D512	E-5
		D513	E-5
TRANSISTOR		D601	A-8
Q001	A-2	D602	C-6
Q002	B-1	D603	A-6
Q003	D-1	D604	A-5
Q004	D-1	D605	B-6
Q005	C-1	D606	B-6
Q006	B-1	D607	B-6
Q007	C-1	D608	C-7
Q008	C-1	D609	B-6
Q009	C-2	D610	C-4
Q251	E-4	D611	D-6
Q261	D-4	D612	B-5
Q271	C-5	D613	A-5
Q502	F-6	D614	A-5
Q505	E-6	D616	D-5
Q506	E-6	D617	A-6
Q507	G-5	D618	D-5
Q598	G-1	D619	B-6
Q601	B-4	D620	D-5
Q602	C-8	D621	B-6
Q603	C-4	D622	D-5
Q604	A-6	D623	B-4
Q605	D-5	D624	B-4
Q606	C-4	D630	D-5
Q607	D-5	D801	F-8
Q608	C-4	D802	F-10
Q609	C-4	D803	G-10
Q801	G-4	D804	E-7
Q804	E-10	D805	E-7
Q805	F-7	D806	E-9
		D807	E-10
		D808	D-9
DIODE		VARIABLE RESISTOR	
D001	B-2	RV501	F-5
D002	A-2	RV502	G-7
D003	A-2	RV601	A-7
D004	C-2		
D005	G-1		

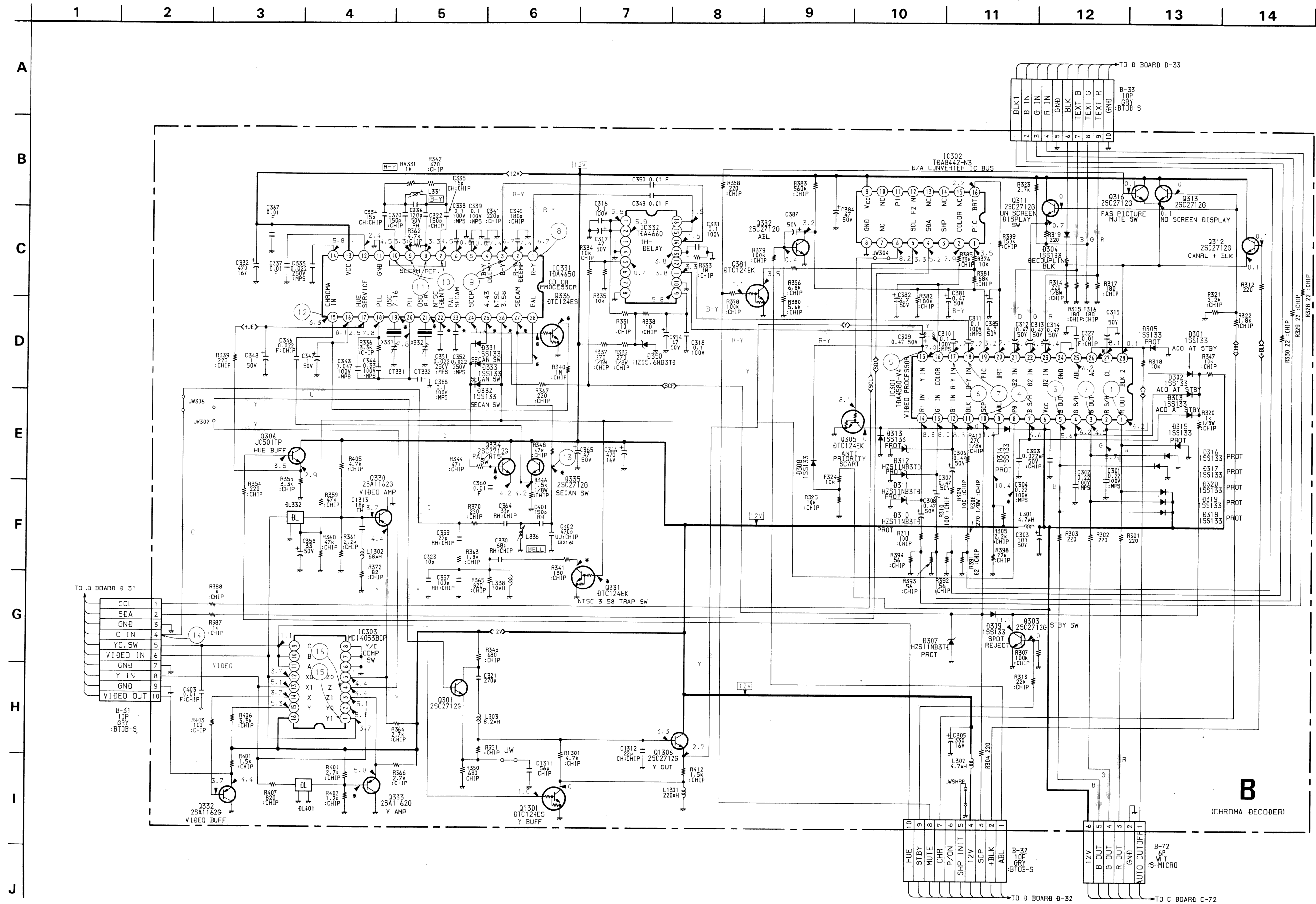
ROL, **D** **D**



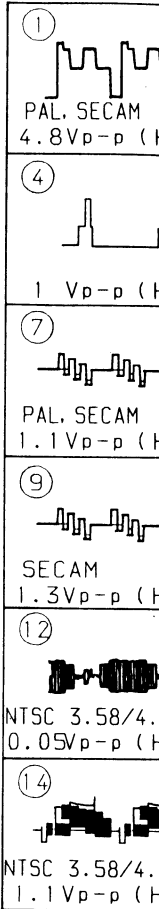
IC		D006	F-1
IC001	B-2	D007	A-1
IC002	D-2	D009	E-1
IC003	C-1	D010	G-1
IC005	G-2	D011	G-1
IC251	F-4	D271	C-4
IC261	C-4	D272	D-5
IC501	G-6	D501	G-6
IC502	E-5	D504	E-5
IC601	A-6	D506	F-5
IC604	A-4	D508	G-5
IC608	A-3	D509	D-6
TRANSISTOR		D511	E-6
Q001	A-2	D512	E-5
Q002	B-1	D513	E-5
Q003	D-1	D601	A-8
Q004	D-1	D602	C-6
Q005	C-1	D603	A-6
Q006	B-1	D604	A-5
Q007	C-1	D605	B-6
Q008	C-1	D606	B-6
Q009	C-2	D607	B-6
Q251	E-4	D608	C-7
Q261	D-4	D609	B-6
Q271	C-5	D610	C-4
Q502	F-6	D611	D-6
Q505	E-6	D612	B-5
Q506	E-6	D613	A-5
Q507	G-5	D614	A-5
Q598	G-1	D616	D-5
Q601	B-4	D617	A-6
Q602	C-8	D618	D-5
Q603	C-4	D619	B-6
Q604	A-6	D620	D-5
Q605	D-5	D621	B-6
Q606	C-4	D622	D-5
Q607	D-5	D623	B-4
Q608	C-4	D624	B-4
Q609	C-4	D630	D-5
Q801	G-4	D801	F-8
Q804	E-10	D802	F-10
Q805	F-7	D803	G-10
DIODE		D804	E-7
D001	B-2	D805	E-7
D002	A-2	D806	E-9
D003	A-2	D807	E-10
D004	C-2	D808	D-9
D005	G-1	VARIABLE RESISTOR	
		RV501	F-5
		RV502	G-7
		RV601	A-7

**NOTE:**  
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

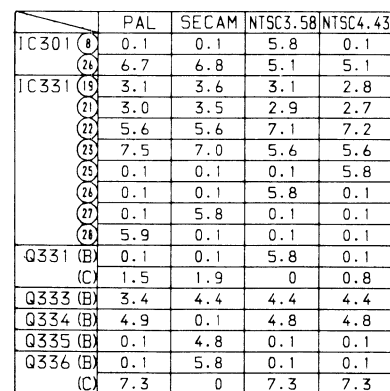




• WAVEFORM



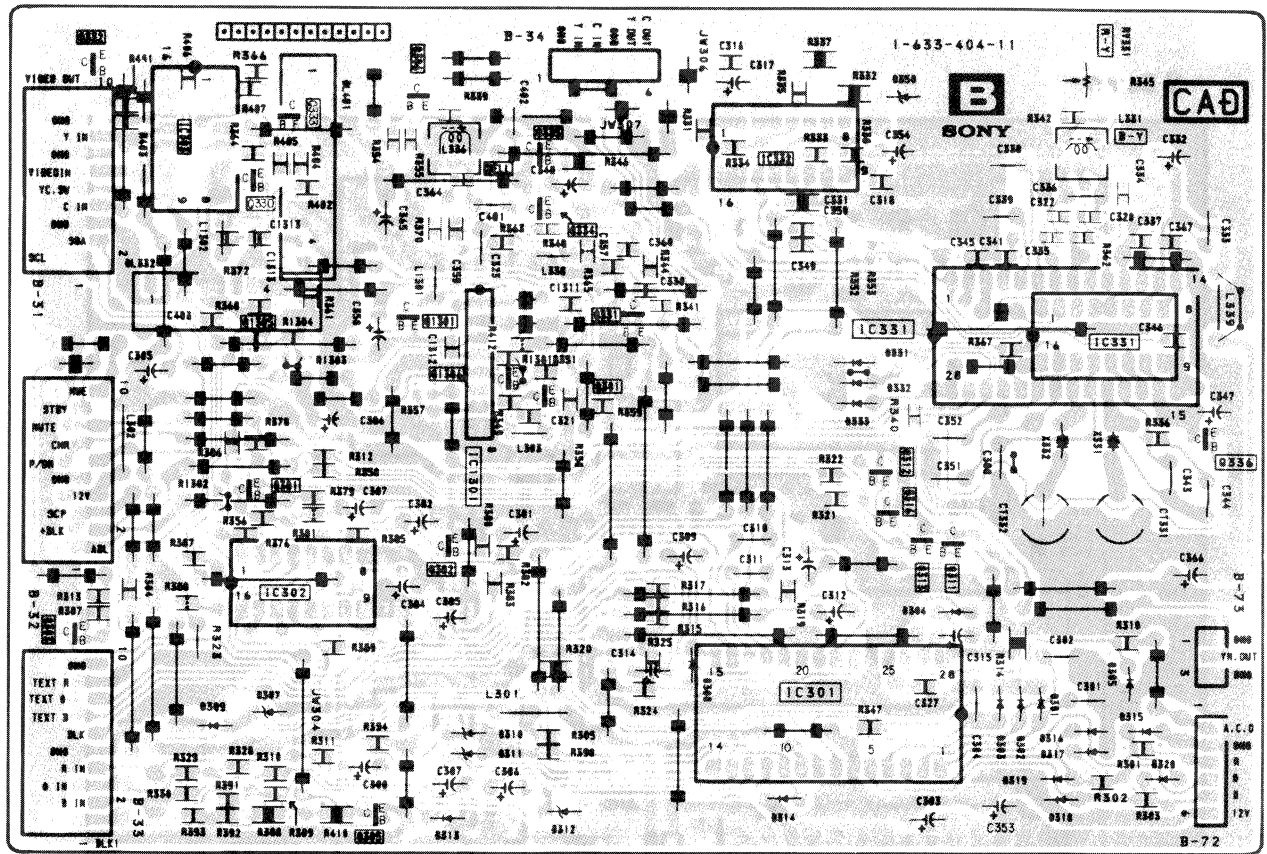
	PAL	SECAM	NTSC 3.58	NTSC 3.58/4.43
IC301 (8)	0.1	0.1	5.8	5.8
IC301 (24)	6.7	6.8	5.1	5.1
IC331 (15)	3.1	3.6	3.1	3.1
IC331 (21)	3.0	3.5	2.9	2.9
IC331 (22)	5.6	5.6	7.1	7.1
IC331 (23)	7.5	7.0	5.6	5.6
IC331 (25)	0.1	0.1	0.1	0.1
IC331 (26)	0.1	0.1	5.8	5.8
IC331 (27)	0.1	5.8	0.1	0.1
IC331 (28)	5.9	0.1	0.1	0.1
Q331 (B)	0.1	0.1	5.8	5.8
Q331 (C)	1.5	1.9	0	0
Q333 (B)	3.4	4.4	4.4	4.4
Q334 (B)	4.9	0.1	4.8	4.8
Q335 (B)	0.1	4.8	0.1	0.1
Q336 (B)	0.1	5.8	0.1	0.1
Q336 (C)	7.3	0	7.3	7.3



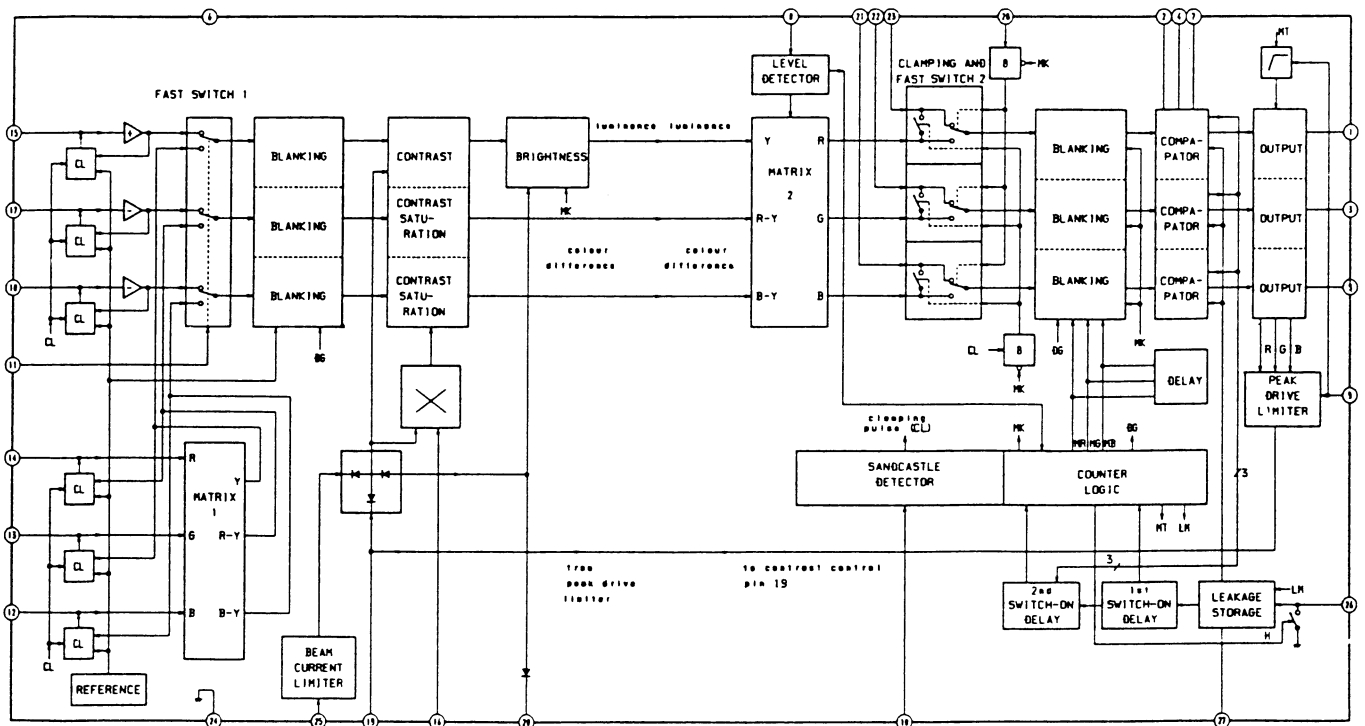
 ① PAL, SECAM 4.8 Vp-p (H)	 ① NTSC 3.58/4.43 4.8 Vp-p (H)	 ② PAL, SECAM 4.8 Vp-p (H)	 ② NTSC 3.58/4.43 4.8 Vp-p (H)	 ③ PAL, SECAM 4.8 Vp-p (H)	 ③ NTSC 3.58/4.43 4.8 Vp-p (H)
 ④ PAL 0.4 Vp-p (H)	 ⑤ SECAM 0.36 Vp-p (H)	 ⑤ NTSC 3.58/4.43 0.46 Vp-p (H)	 ⑥ PAL, SECAM 0.9 Vp-p (H)	 ⑥ NTSC 3.58/4.43 0.7 Vp-p (H)	
 ⑦ PAL, SECAM 1.1 Vp-p (H)	 ⑦ NTSC 3.58/4.43 1 Vp-p (H)	 ⑧ PAL 0.5 Vp-p (H)	 ⑧ SECAM 1.1 Vp-p (H)	 ⑨ NTSC 3.58/4.43 0.4 Vp-p (H)	 ⑨ PAL 0.6 Vp-p (H)
 ⑨ SECAM 1.3 Vp-p (H)	 ⑨ NTSC 3.58/4.43 0.6 Vp-p (H)	 ⑩ SECAM 1.4 Vp-p (H)	 ⑪ SECAM 0.2 Vp-p (H)	 ⑫ PAL 0.2 Vp-p (H)	 ⑫ SECAM 0.12 Vp-p (H)
 ⑫ NTSC 3.58/4.43 0.05 Vp-p (H)	 ⑬ PAL 0.4 Vp-p (H)	 ⑬ SECAM 0.1 Vp-p (H)	 ⑬ NTSC 3.58/4.43 0.4 Vp-p (H)	 ⑭ PAL 1 Vp-p (H)	 ⑭ SECAM 1 Vp-p (H)
 ⑭ NTSC 3.58/4.43 1.1 Vp-p (H)	 ⑮ PAL 1 Vp-p (H)	 ⑮ SECAM 0.9 Vp-p (H)	 ⑮ NTSC 3.58/4.43 1 Vp-p (H)	 ⑯ PAL, SECAM 0.4 Vp-p (H)	 ⑯ NTSC 3.58/4.43 0.54 Vp-p (H)

[illegible]

## —B Board—



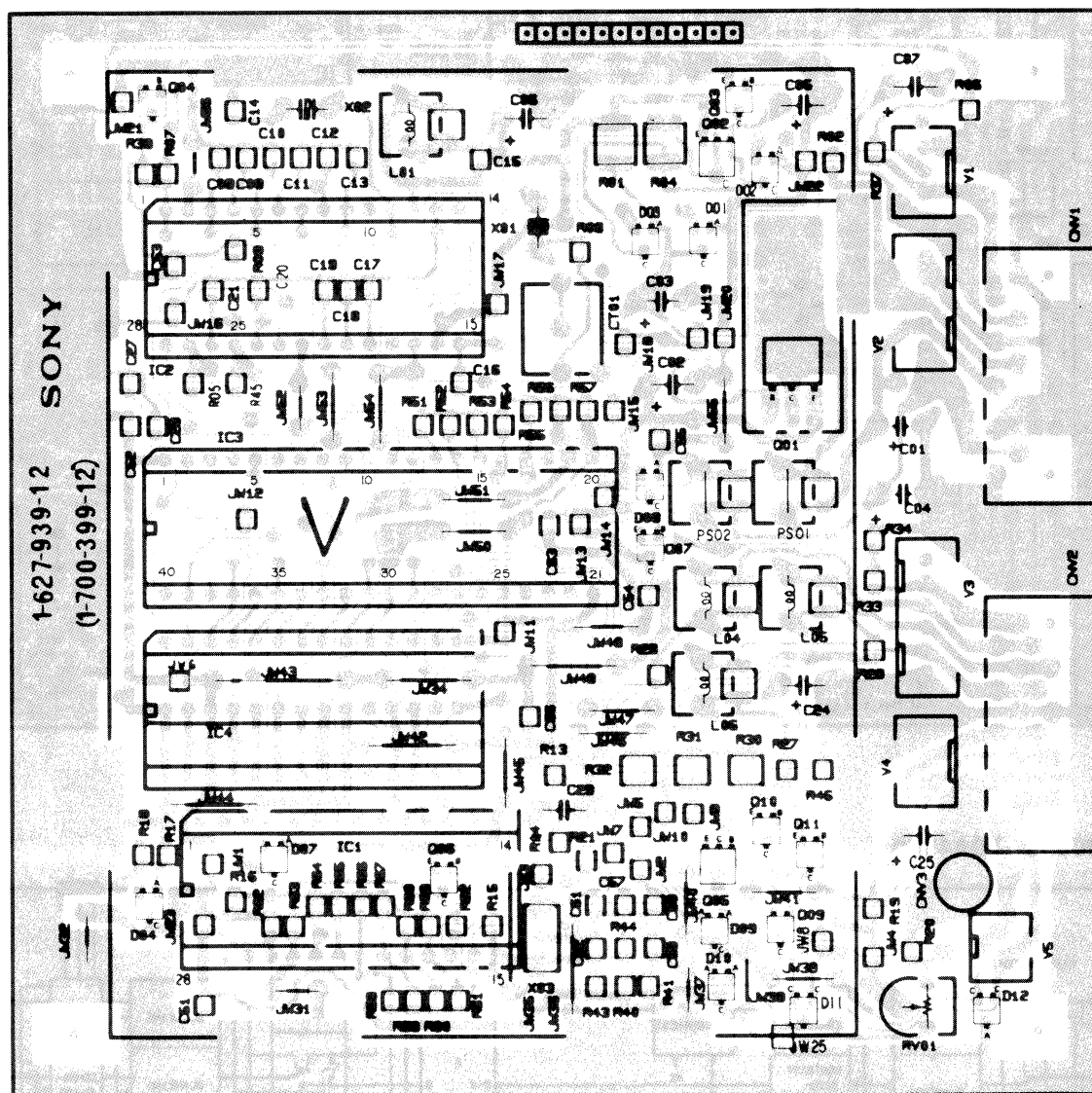
## B BOARD IC301 TDA4580



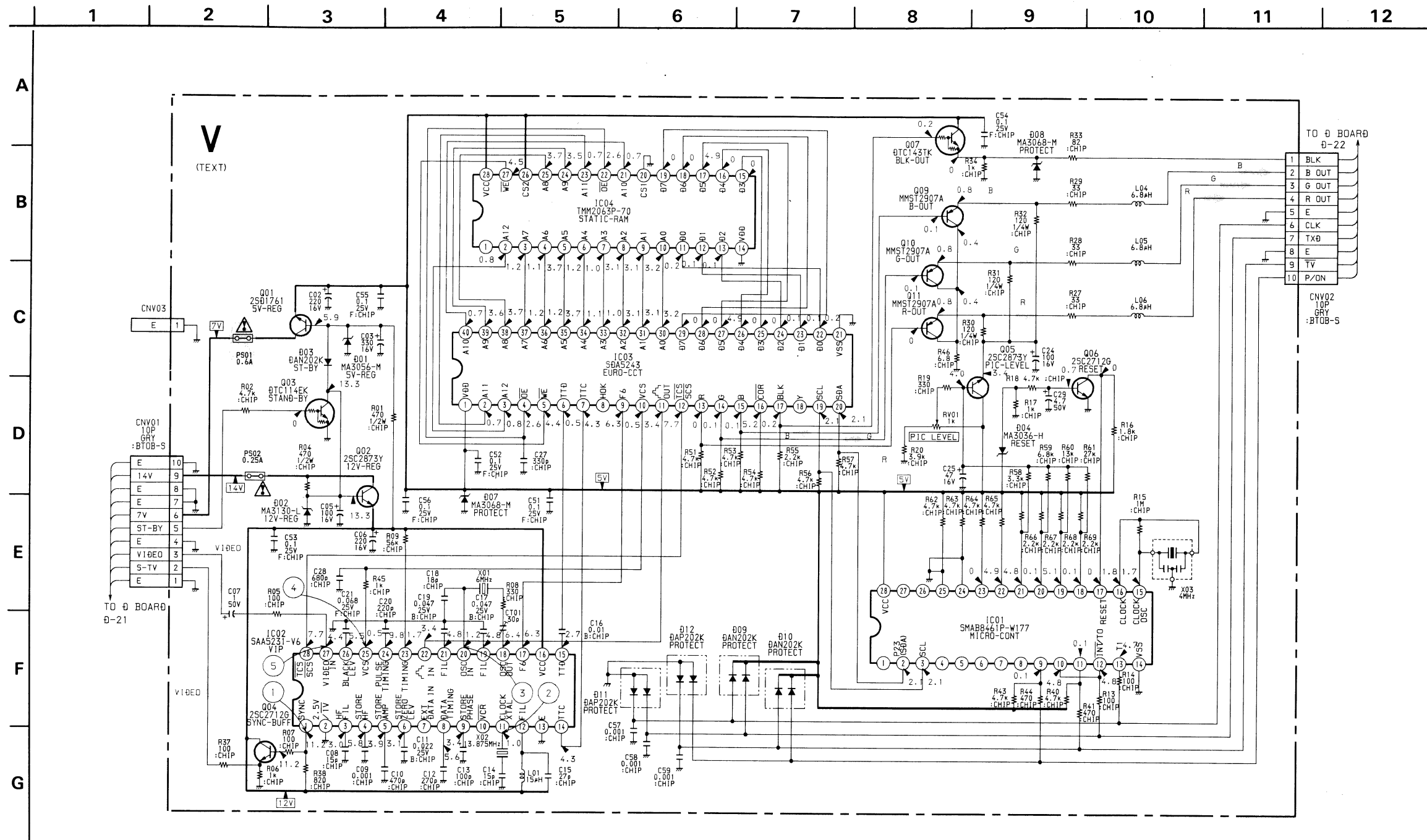
V

[TEXT]

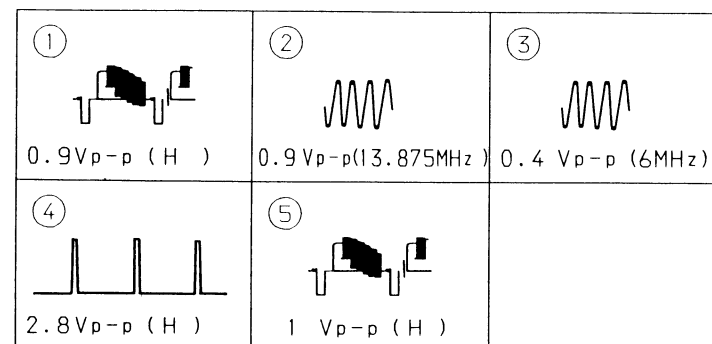
—V Board—







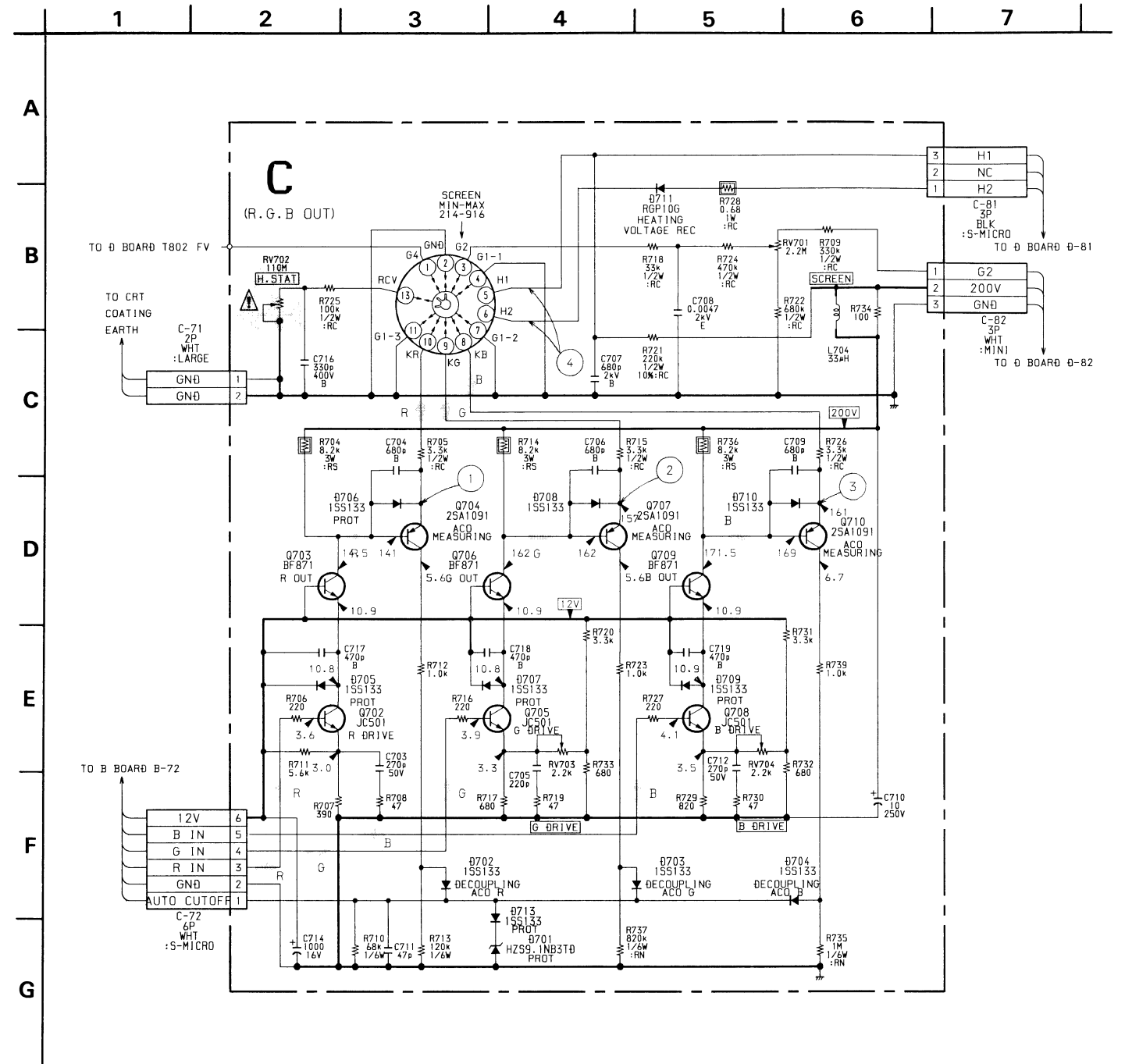
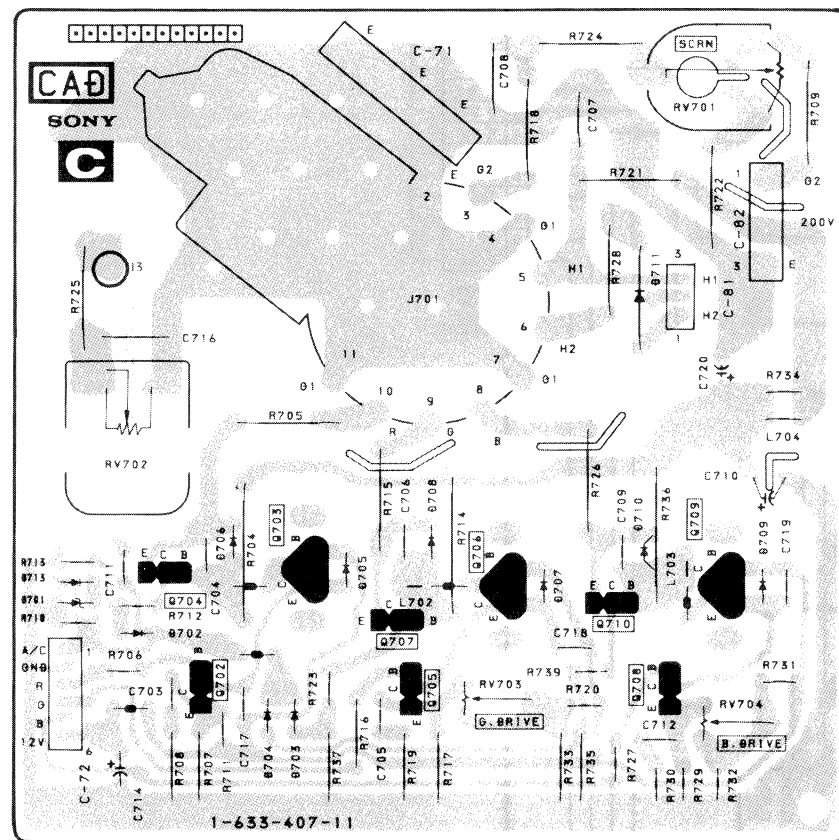
● WAVEFORMS V BOARD



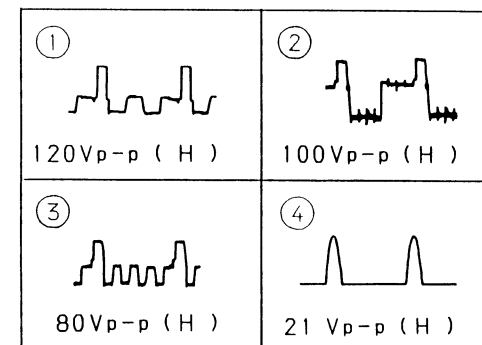
[R · G · B OUT]

C

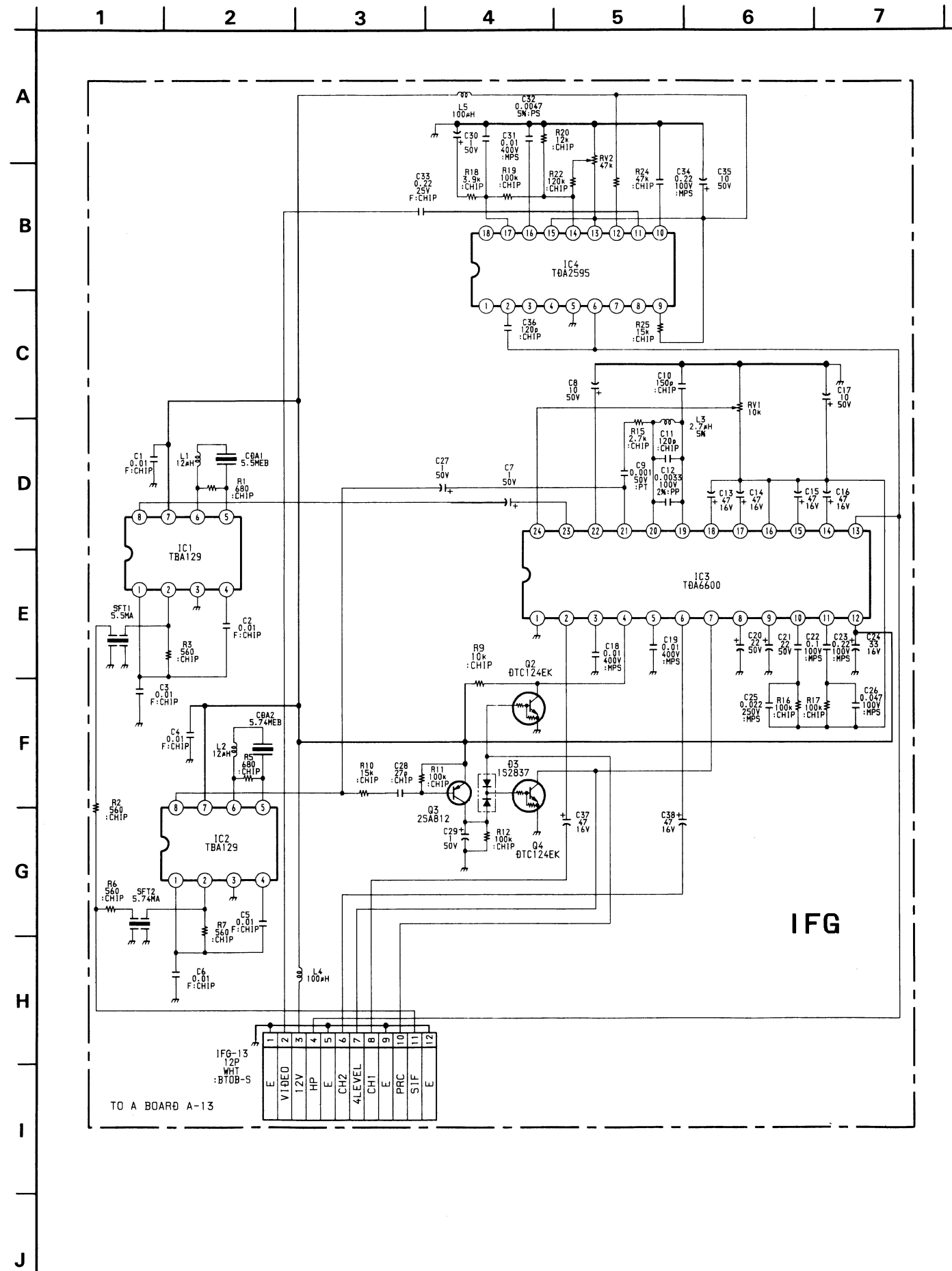
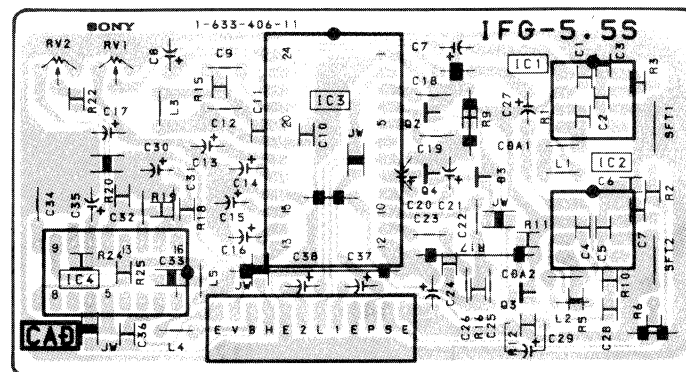
—C Board—



• WAVEFORMS C BOARD



—IFG Board—



5-4. SEMICONDUCTORS

BA4558  
SDA2546  
TBA129  
TEA2014  
TEA2031A  
μPC4558C

TOP VIEW

TC6011N

TOP VIEW

TDA2050

BX1387

TDA8170

CXA1114P  
SAA5231-V6  
SMAB8461P-W177  
TC5563APL  
TDA4580  
TDA4650  
TDA6200  
TEA2028B  
TMM2063P-70

TOP VIEW

TYA7812CT  
μPC24M05HF

BF871

MC14053BCP  
PCF8574  
TC4049BP  
TC4053BP  
TDA4510/V6  
TDA4660  
TDA8442-N3  
TEA2260

TOP VIEW

SDA2083  
SDA5243

TOP VIEW

TA8662N

TOP VIEW

DTA144EK  
DTC114EK  
DTC124EK  
DTC143TK  
DTC144EK  
MMST2907A  
2SA1162G  
2SC2712

DTA144ES  
DTC124ES  
DTC144ES  
2SA1162

2SD1548-LB  
2SD1941

2SD2096

CTU-12S

DAN202K

DAP202K

DA204K

ERC06-15S  
ERC25-06S

ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

2SB1185  
2SD1761

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SD2096

CTU-12S

DAN202K

DAP202K

DA204K

ERC06-15S  
ERC25-06S

ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J

2SC2216

TOP VIEW

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LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

2SB1185  
2SD1761

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TOP VIEW

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LETTER SIZE

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2SD1941

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CTU-12S

DAN202K

DAP202K

DA204K

ERC06-15S  
ERC25-06S

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ES1F  
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RGP10G  
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2SC2216

TOP VIEW

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LETTER SIZE

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2SD1548-LB  
2SD1941

2SB734  
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2SD774

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TOP VIEW

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2SD1941

2SD2096

CTU-12S

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ERC06-15S  
ERC25-06S

ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

2SB1185  
2SD1761

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SD2096

CTU-12S

DAN202K

DAP202K

DA204K

ERC06-15S  
ERC25-06S

ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

2SB1185  
2SD1761

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SD2096

CTU-12S

DAN202K

DAP202K

DA204K

ERC06-15S  
ERC25-06S

ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

2SB1185  
2SD1761

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SD2096

CTU-12S

DAN202K

DAP202K

DA204K

ERC06-15S  
ERC25-06S

ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

2SB1185  
2SD1761

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SD2096

CTU-12S

DAN202K

DAP202K

DA204K

ERC06-15S  
ERC25-06S

ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

2SB1185  
2SD1761

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SD2096

CTU-12S

DAN202K

DAP202K

DA204K

ERC06-15S  
ERC25-06S

ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

2SB1185  
2SD1761

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SD2096

CTU-12S

DAN202K

DAP202K

DA204K

ERC06-15S  
ERC25-06S

ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

2SB1185  
2SD1761

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SD2096

CTU-12S

DAN202K

DAP202K

DA204K

ERC06-15S  
ERC25-06S

ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

2SB1185  
2SD1761

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SD2096

CTU-12S

DAN202K

DAP202K

DA204K

ERC06-15S  
ERC25-06S

ERD28-08S  
ES1F  
GP08D  
RGP10G  
RGP15J

2SC2216

TOP VIEW

2SC2688

LETTER SIZE

2SC2873Y

2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

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TOP VIEW

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2SD1548-LB  
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CTU-12S

DAN202K

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LETTER SIZE

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2SC2216

TOP VIEW

2SC2688

LETTER SIZE

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2SD1548-LB  
2SD1941

2SB734  
2SD773  
2SD774

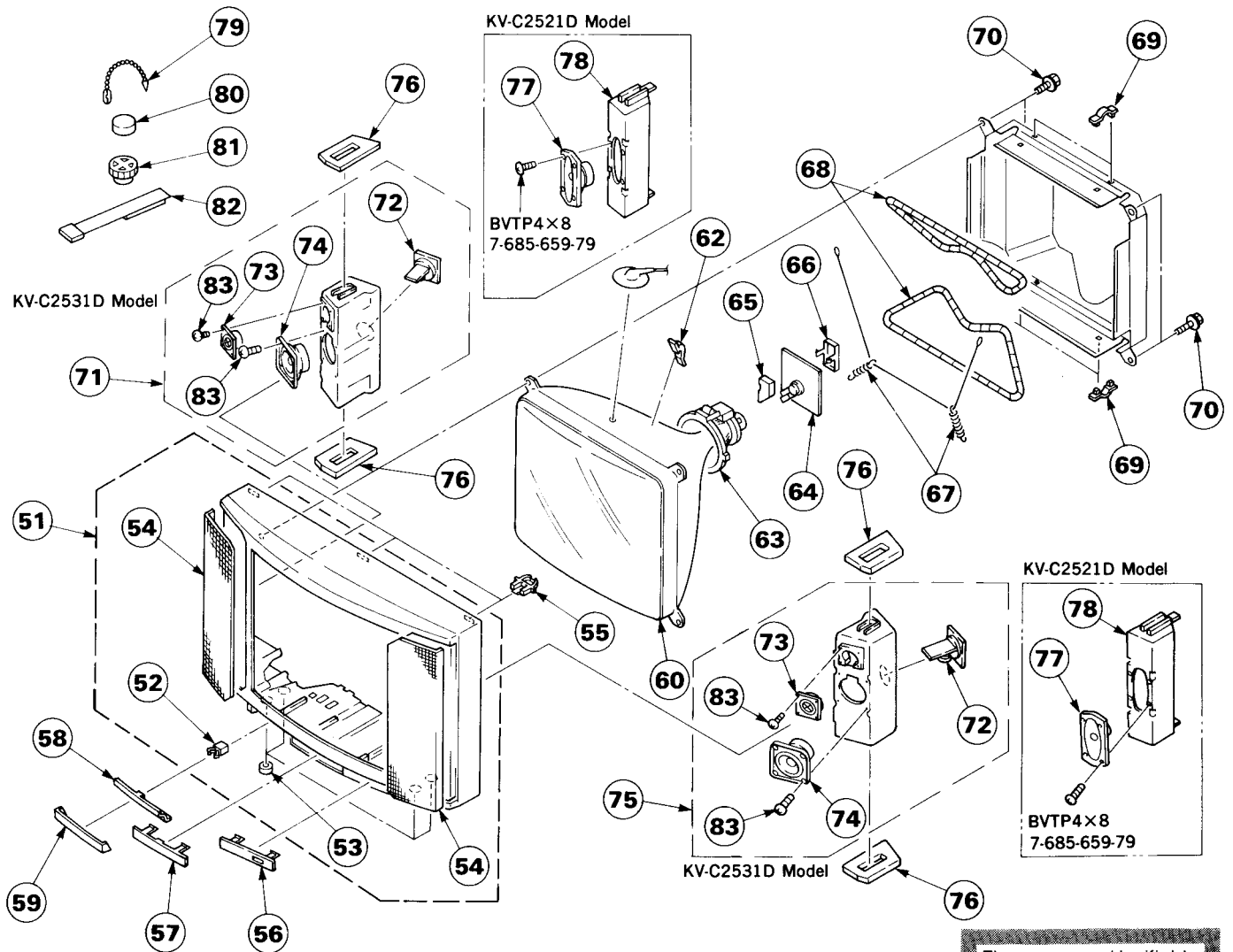
2SB1185  
2SD1761

2SC2216

TOP VIEW

2SC2688

## 6-2. PICTURE TUBE



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4200-032-1	CABINET ASSY (WITH BEZEL ASSY) (BLACK) (KV-C2531D ONLY)	52-54	64	*A-1638-004-A	C BOARD, COMPLETE	
	X-4200-032-2	CABINET ASSY (WITH BEZEL ASSY) (GRAY) (KV-C2531D ONLY)	52-54	65	*4-379-167-01	COVER (MAIN), CV	
	X-4200-037-1	CABINET ASSY (WITH BEZEL ASSY) (BLACK) (KV-C2521D ONLY)	52-54	66	*4-379-160-01	COVER (REAR LID), CV	
52	4-392-036-01	CATCHER, PUSH		67	4-303-774-99	SPRING	
53	4-809-913-99	FOOT, F		68	⚠ 1-426-372-11	COIL, DEMAGNETIZATION	
54	X-4200-031-1	PLATE ASSY, ORNAMENTAL (BLACK) (KV-C2531D ONLY)		69	*4-385-916-01	HOLDER (D)	
	X-4200-031-2	PLATE ASSY, ORNAMENTAL (GRAY) (KV-C2531D ONLY)		70	4-373-263-11	SCREW (M), PT	
	X-4200-036-1	FRAME ASSY (KV-C2521D ONLY)		71	*A-1678-020-A	BOX ASSY, (LEFT), SPEAKER	72-74, 83 (KV-C2531D ONLY)
55	4-382-745-01	HOLDER, RC		72	1-236-510-11	NETWORK, DIVIDING (KV-C2531D ONLY)	
56	4-394-315-01	WINDOW, ORNAMENTAL		73	1-544-146-11	SPEAKER (KV-C2531D ONLY)	
57	4-200-222-01	COVER, FRONT		74	1-544-147-11	SPEAKER (KV-C2531D ONLY)	
58	4-394-330-01	DOOR (BLACK)		75	*A-1678-019-A	BOX ASSY, (RIGHT), SPEAKER	72-74, 83 (KV-C2531D ONLY)
	4-394-330-12	DOOR (LIGHT GRAY) (KV-C2531D ONLY)		76	4-200-217-01	CUSHION, BOX	
59	4-200-390-01	COVER, DOOR		77	1-503-642-41	SPEAKER (KV-C2521D ONLY)	
60	⚠ 8-733-224-05	PICTURE TUBE (A59JWC60X)		78	4-200-253-01	BOARD, BAFFLE (KV-C2521D ONLY)	
62	3-704-495-01	SPACER, DY		79	4-308-870-00	CLIP, LEAD WIRE	
63	⚠ 1-451-311-21	DEFLECTION YOKE (Y25FXA)		80	1-452-032-00	MAGNET, DISK; 10MM φ	
				81	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
				82	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
				83	4-364-802-00	SCREW (3.5×13) (KV-C2531D ONLY)	

# SECTION 7 ELECTRICAL PARTS LIST

## NOTE:

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS  
MF :  $\mu$ F, PF :  $\mu$  $\mu$ F  
COILS  
MMH : mH, UH :  $\mu$ H

## RESISTORS

- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1347-031-A	V BOARD, COMPLETE *****				<DIODE>	
	*4-380-699-01	CASE (UPPER LID), SHIELD, A1		D01	8-719-105-91	DIODE RD5.6M-B2	
		<CAPACITOR>		D02	8-719-106-79	DIODE RD13M-B1	
C02	1-124-120-11	ELECT 220MF	20% 16V	D03	8-719-400-18	DIODE MA152WK	
C03	1-124-119-00	ELECT 330MF	20% 16V	D04	8-719-105-52	DIODE RD3.6M-B2	
C05	1-126-101-11	ELECT 100MF	20% 16V	D07	8-719-106-17	DIODE RD6.8M-B2	
C06	1-124-120-11	ELECT 220MF	20% 16V	D08	8-719-106-17	DIODE RD6.8M-B2	
C07	1-124-791-11	ELECT 1MF	20% 50V	D09	8-719-400-18	DIODE MA152WK	
C08	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	D10	8-719-400-18	DIODE MA152WK	
C09	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	D11	8-719-914-44	DIODE DAP202K	
C10	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	D12	8-719-914-44	DIODE DAP202K	
C11	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V			<IC>	
C12	1-163-127-00	CERAMIC CHIP 270PF	5% 50V	IC1	8-759-986-92	IC MAB-8461P-W177	
C13	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	IC2	8-759-972-96	IC SAA5231-V6	
C14	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	IC3	8-759-032-98	IC SDA5243	
C15	1-163-103-00	CERAMIC CHIP 27PF	5% 50V	IC4	8-759-230-68	IC TMM2063P-70	
C16	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V			<COIL>	
C17	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	L01	1-408-411-00	INDUCTOR 15UH	
C18	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	L04	1-408-407-00	INDUCTOR 6.8UH	
C19	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	L05	1-408-407-00	INDUCTOR 6.8UH	
C20	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	L06	1-408-407-00	INDUCTOR 6.8UH	
C21	1-163-833-00	CERAMIC CHIP 0.068MF	25V			<IC LINK>	
C24	1-126-101-11	ELECT 100MF	20% 16V	PS01	$\Delta$ 1-532-679-91	LINK, IC (ICP-N15) 0.6A	
C25	1-124-477-11	ELECT 47MF	20% 16V	PS02	$\Delta$ 1-532-727-91	LINK, IC 0.25A	
C27	1-163-129-00	CERAMIC CHIP 330PF	5% 50V			<TRANSISTOR>	
C28	1-163-137-00	CERAMIC CHIP 680PF	5% 50V	Q3	8-729-900-53	TRANSISTOR DTC114EK	
C29	1-124-927-11	ELECT 4.7MF	20% 50V	Q01	8-729-107-26	TRANSISTOR 2SD1585-K	
C51	1-163-038-00	CERAMIC CHIP 0.1MF	25V	Q02	8-729-807-50	TRANSISTOR 2SD1623-R	
C52	1-163-038-00	CERAMIC CHIP 0.1MF	25V	Q04	8-729-271-22	TRANSISTOR 2SC2712-G	
C53	1-163-038-00	CERAMIC CHIP 0.1MF	25V	Q05	8-729-807-50	TRANSISTOR 2SD1623-R	
C54	1-163-038-00	CERAMIC CHIP 0.1MF	25V	Q06	8-729-271-22	TRANSISTOR 2SC2712-G	
C55	1-163-038-00	CERAMIC CHIP 0.1MF	25V	Q07	8-729-900-98	TRANSISTOR DTC143TK	
C56	1-163-038-00	CERAMIC CHIP 0.1MF	25V	Q09	8-729-807-87	TRANSISTOR 2SB1295-UL6	
C57	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	Q10	8-729-807-87	TRANSISTOR 2SB1295-UL6	
C58	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	Q11	8-729-807-87	TRANSISTOR 2SB1295-UL6	
C59	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V			<RESISTOR>	
		<CONNECTOR>		JW1	1-216-295-00	METAL GLAZE 0 5% 1/10W	
CNV01	*1-565-393-11	CONNECTOR, BOARD TO BOARD		JW2	1-216-295-00	METAL GLAZE 0 5% 1/10W	
CNV02	*1-565-393-11	CONNECTOR, BOARD TO BOARD		JW3	1-216-295-00	METAL GLAZE 0 5% 1/10W	
CNV03	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		JW4	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		<TRIMMER>		JW5	1-216-295-00	METAL GLAZE 0 5% 1/10W	
CT01	1-141-392-11	CAP, VAR, TRIMMER (1 GANG)		JW6	1-216-295-00	METAL GLAZE 0 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
JW7	1-216-295-00	METAL GLAZE	0 5% 1/10W	R64	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
JW8	1-216-295-00	METAL GLAZE	0 5% 1/10W	R65	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
JW9	1-216-295-00	METAL GLAZE	0 5% 1/10W	R66	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
JW10	1-216-295-00	METAL GLAZE	0 5% 1/10W	R67	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
JW11	1-216-295-00	METAL GLAZE	0 5% 1/10W	R68	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
				R69	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
JW12	1-216-295-00	METAL GLAZE	0 5% 1/10W	<VARIABLE RESISTOR>			
JW13	1-216-295-00	METAL GLAZE	0 5% 1/10W	RV01	1-238-012-11	RES, ADJ, CARBON 1K	
JW14	1-216-295-00	METAL GLAZE	0 5% 1/10W	<CRYSTAL>			
JW15	1-216-295-00	METAL GLAZE	0 5% 1/10W	X01	1-567-162-00	OSCILLATOR, CRYSTAL	
JW16	1-216-295-00	METAL GLAZE	0 5% 1/10W	X02	1-567-495-11	OSCILLATOR, CRYSTAL	
				X03	1-577-082-11	VIBRATOR, CERAMIC	
JW17	1-216-295-00	METAL GLAZE	0 5% 1/10W	*****			
JW18	1-216-295-00	METAL GLAZE	0 5% 1/10W	*A-1621-010-A B BOARD, COMPLETE			
JW19	1-216-295-00	METAL GLAZE	0 5% 1/10W	*****			
JW20	1-216-295-00	METAL GLAZE	0 5% 1/10W	*1-565-393-11 CONNECTOR, BOARD TO BOARD			
JW21	1-216-295-00	METAL GLAZE	0 5% 1/10W	*1-568-881-51 PIN, CONNECTOR 6P			
JW22	1-216-295-00	METAL GLAZE	0 5% 1/10W	<CAPACITOR>			
JW23	1-216-295-00	METAL GLAZE	0 5% 1/10W	C301	1-106-228-00	MYLAR 0.22MF 10% 100V	
JW24	1-216-295-00	METAL GLAZE	0 5% 1/10W	C302	1-106-228-00	MYLAR 0.22MF 10% 100V	
JW25	1-216-295-00	METAL GLAZE	0 5% 1/10W	C303	1-124-122-11	ELECT 100MF 20% 50V	
RO1	1-218-326-11	METAL GLAZE	470 5% 1/2W	C304	1-106-228-00	MYLAR 0.22MF 10% 100V	
				C305	1-124-119-00	ELECT 330MF 20% 16V	
RO2	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C306	1-124-902-00	ELECT 0.47MF 20% 50V	
RO4	1-218-326-11	METAL GLAZE	470 5% 1/2W	C307	1-124-902-00	ELECT 0.47MF 20% 50V	
RO5	1-216-025-00	METAL GLAZE	100 5% 1/10W	C308	1-124-902-00	ELECT 0.47MF 20% 50V	
RO6	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C309	1-124-902-00	ELECT 0.47MF 20% 50V	
RO7	1-216-025-00	METAL GLAZE	100 5% 1/10W	C310	1-106-220-00	MYLAR 0.1MF 10% 100V	
				C311	1-106-220-00	MYLAR 0.1MF 10% 100V	
RO8	1-216-037-00	METAL GLAZE	330 5% 1/10W	C312	1-124-902-00	ELECT 0.47MF 20% 50V	
RO9	1-216-091-00	METAL GLAZE	56K 5% 1/10W	C313	1-124-902-00	ELECT 0.47MF 20% 50V	
R13	1-216-025-00	METAL GLAZE	100 5% 1/10W	C314	1-124-902-00	ELECT 0.47MF 20% 50V	
R14	1-216-025-00	METAL GLAZE	100 5% 1/10W	C315	1-124-791-11	ELECT 1MF 20% 50V	
R15	1-216-121-00	METAL GLAZE	1M 5% 1/10W	C316	1-106-220-00	MYLAR 0.1MF 10% 100V	
				C317	1-124-910-11	ELECT 47MF 20% 50V	
R16	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	C318	1-106-220-00	MYLAR 0.1MF 10% 100V	
R17	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C320	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
R18	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C321	1-163-127-00	CERAMIC CHIP 270PF 5% 50V	
R19	1-216-037-00	METAL GLAZE	330 5% 1/10W	C322	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
R20	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	C323	1-102-947-00	CERAMIC 10PF 0.5PF 50V	
				C327	1-164-232-11	CERAMIC CHIP 0.01MF 50V	
R27	1-216-013-00	METAL GLAZE	33 5% 1/10W	C330	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
R28	1-216-013-00	METAL GLAZE	33 5% 1/10W	C331	1-106-220-00	MYLAR 0.1MF 10% 100V	
R29	1-216-013-00	METAL GLAZE	33 5% 1/10W	C332	1-126-103-11	ELECT 470MF 20% 16V	
R30	1-218-325-11	METAL GLAZE	120 5% 1/4W	C333	1-106-375-12	MYLAR 0.022MF 10% 250V	
R31	1-218-325-11	METAL GLAZE	120 5% 1/4W	C334	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
				C335	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
R32	1-218-325-11	METAL GLAZE	120 5% 1/4W	C336	1-102-816-00	CERAMIC 120PF 5% 50V	
R33	1-216-023-00	METAL GLAZE	82 5% 1/10W	C337	1-101-004-00	CERAMIC 0.01MF 50V	
R34	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C338	1-106-220-00	MYLAR 0.1MF 10% 100V	
R37	1-216-025-00	METAL GLAZE	100 5% 1/10W	C339	1-106-220-00	MYLAR 0.1MF 10% 100V	
R38	1-216-047-00	METAL GLAZE	820 5% 1/10W	C341	1-163-125-00	CERAMIC CHIP 220PF 5% 50V	
				C343	1-106-383-00	MYLAR 0.047MF 10% 100V	
R40	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C344	1-130-783-00	MYLAR 0.33MF 10% 100V	
R41	1-216-041-00	METAL GLAZE	470 5% 1/10W	C345	1-163-123-00	CERAMIC CHIP 180PF 5% 50V	
R43	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C346	1-163-033-00	CERAMIC CHIP 0.022MF 50V	
R44	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R45	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R46	1-216-311-00	METAL GLAZE	6.8 5% 1/10W				
R51	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R52	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R53	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R54	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R55	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R56	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R57	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R58	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R59	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W				
R60	1-216-076-00	METAL GLAZE	13K 5% 1/10W				
R61	1-216-083-00	METAL GLAZE	27K 5% 1/10W				
R62	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R63	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				

REF. NO.	PART NO.	DESCRIPTION	REMARK
C347	1-124-791-11	ELECT 1MF	20% 50V
C348	1-124-791-11	ELECT 1MF	20% 50V
C349	1-101-004-00	CERAMIC 0.01MF	50V
C350	1-101-004-00	CERAMIC 0.01MF	50V
C351	1-106-375-12	MYLAR 0.022MF	10% 250V
C352	1-106-375-12	MYLAR 0.022MF	10% 250V
C353	1-163-063-00	CERAMIC CHIP 0.022MF	10% 50V
C354	1-124-910-11	ELECT 47MF	20% 50V
C357	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C358	1-124-917-11	ELECT 33MF	20% 50V
C359	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C360	1-101-004-00	CERAMIC 0.01MF	50V
C364	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C365	1-124-910-11	ELECT 47MF	20% 50V
C366	1-126-103-11	ELECT 470MF	20% 16V
C367	1-101-004-00	CERAMIC 0.01MF	50V
C381	1-124-902-00	ELECT 0.47MF	20% 50V
C382	1-124-927-11	ELECT 4.7MF	20% 50V
C384	1-124-910-11	ELECT 47MF	20% 50V
C385	1-124-927-11	ELECT 4.7MF	20% 50V
C386	1-124-927-11	ELECT 4.7MF	20% 50V
C387	1-130-833-00	MYLAR 0.82MF	10% 63V
C388	1-106-220-00	MYLAR 0.1MF	10% 100V
C401	1-101-361-00	CERAMIC 150PF	5% 50V
C402	1-163-197-00	CERAMIC CHIP 470PF	5% 50V
C403	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C1311	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C1312	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C1313	1-102-953-00	CERAMIC 18PF	5% 50V

## &lt;TRIMMER&gt;

CT331	1-141-418-11	CAP, ADJ
CT332	1-141-418-11	CAP, ADJ

## &lt;DIODE&gt;

D301	8-719-911-19	DIODE 1SS119
D302	8-719-911-19	DIODE 1SS119
D303	8-719-911-19	DIODE 1SS119
D304	8-719-911-19	DIODE 1SS119
D305	8-719-911-19	DIODE 1SS119
D307	8-719-929-24	DIODE HZS11NB3
D308	8-719-911-19	DIODE 1SS119
D309	8-719-911-19	DIODE 1SS119
D310	8-719-929-24	DIODE HZS11NB3
D311	8-719-929-24	DIODE HZS11NB3
D312	8-719-929-24	DIODE HZS11NB3
D313	8-719-911-19	DIODE 1SS119
D314	8-719-911-19	DIODE 1SS119
D315	8-719-911-19	DIODE 1SS119
D316	8-719-911-19	DIODE 1SS119
D317	8-719-911-19	DIODE 1SS119
D318	8-719-911-19	DIODE 1SS119
D319	8-719-911-19	DIODE 1SS119
D320	8-719-911-19	DIODE 1SS119
D331	8-719-911-19	DIODE 1SS119
D332	8-719-911-19	DIODE 1SS119
D333	8-719-911-19	DIODE 1SS119
D350	8-719-928-94	DIODE HZS5.6NB3

## &lt;DELAY LINE&gt;

DL332	1-236-062-11	MODULE, Y DELAY LINE
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REF. NO.	PART NO.	DESCRIPTION	REMARK
DL401	1-415-613-11	DELAY LINE, Y	
<IC>			
IC301	8-759-979-85	IC TDA4580-V4	
IC302	8-759-980-60	IC TDA8442N3	
IC303	8-759-040-53	IC MC14053BCP	
IC331	8-759-990-29	IC TDA4650	
IC332	8-759-990-30	IC TDA4660	
<COIL>			
L301	1-410-868-11	INDUCTOR	4.7UH
L302	1-410-868-11	INDUCTOR	4.7UH
L303	1-408-408-00	INDUCTOR	8.2UH
L331	1-404-554-11	COIL	
L336	1-404-554-11	COIL	
L338	1-408-409-00	INDUCTOR	10UH
L1301	1-408-425-00	INDUCTOR	220UH
L1302	1-408-419-00	INDUCTOR	68UH
<TRANSISTOR>			
Q301	8-729-271-22	TRANSISTOR 2SC2712-G	
Q303	8-729-271-22	TRANSISTOR 2SC2712-G	
Q305	8-729-901-00	TRANSISTOR DTC124EK	
Q306	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q311	8-729-271-22	TRANSISTOR 2SC2712-G	
Q312	8-729-271-22	TRANSISTOR 2SC2712-G	
Q313	8-729-271-22	TRANSISTOR 2SC2712-G	
Q316	8-729-271-22	TRANSISTOR 2SC2712-G	
Q330	8-729-216-22	TRANSISTOR 2SA1162-G	
Q331	8-729-901-00	TRANSISTOR DTC124EK	
Q332	8-729-216-22	TRANSISTOR 2SA1162-G	
Q333	8-729-216-22	TRANSISTOR 2SA1162-G	
Q334	8-729-271-22	TRANSISTOR 2SC2712-G	
Q335	8-729-271-22	TRANSISTOR 2SC2712-G	
Q336	8-729-900-36	TRANSISTOR DTC124ES	
Q381	8-729-901-00	TRANSISTOR DTC124EK	
Q382	8-729-271-22	TRANSISTOR 2SC2712-G	
Q1301	8-729-900-36	TRANSISTOR DTC124ES	
Q1306	8-729-271-22	TRANSISTOR 2SC2712-G	
<RESISTOR>			
JR384	1-216-295-00	METAL GLAZE	0 5% 1/10W
JR390	1-216-295-00	METAL GLAZE	0 5% 1/10W
R301	1-249-409-11	CARBON	220 5% 1/4W
R302	1-249-409-11	CARBON	220 5% 1/4W
R303	1-249-409-11	CARBON	220 5% 1/4W
R304	1-249-409-11	CARBON	220 5% 1/4W
R305	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R307	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R308	1-216-184-00	METAL GLAZE	270 5% 1/8W
R309	1-216-025-00	METAL GLAZE	100 5% 1/10W
R310	1-216-025-00	METAL GLAZE	100 5% 1/10W
R311	1-216-025-00	METAL GLAZE	100 5% 1/10W
R312	1-249-409-11	CARBON	220 5% 1/4W
R313	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R314	1-216-182-00	METAL GLAZE	220 5% 1/8W
R315	1-216-027-00	METAL GLAZE	120 5% 1/10W
R316	1-216-027-00	METAL GLAZE	120 5% 1/10W
R317	1-216-027-00	METAL GLAZE	120 5% 1/10W
R318	1-249-429-11	CARBON	10K 5% 1/4W
R319	1-249-409-11	CARBON	220 5% 1/4W



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Replace only with part number specified.

**B** **F** **A**

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R320	1-216-198-00	METAL GLAZE	1K 5% 1/8W	R401	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R321	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R402	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R322	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	R403	1-216-025-00	METAL GLAZE	100 5% 1/10W
R323	1-249-422-11	CARBON	2.7K 5% 1/4W	R404	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R324	1-249-429-11	CARBON	10K 5% 1/4W	R405	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R325	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R406	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R328	1-216-009-00	METAL GLAZE	22 5% 1/10W	R407	1-216-047-00	METAL GLAZE	820 5% 1/10W
R329	1-216-009-00	METAL GLAZE	22 5% 1/10W	R410	1-216-184-00	METAL GLAZE	270 5% 1/8W
R330	1-216-009-00	METAL GLAZE	22 5% 1/10W	R412	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R331	1-216-001-00	METAL GLAZE	10 5% 1/10W	R1301	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R332	1-216-184-00	METAL GLAZE	270 5% 1/8W	R1305	1-216-001-00	METAL GLAZE	10 5% 1/10W
R333	1-216-121-00	METAL GLAZE	1M 5% 1/10W	<VARIABLE RESISTOR>			
R334	1-216-073-00	METAL GLAZE	10K 5% 1/10W	RV331	1-238-012-11	RES, ADJ, CARBON 1K	
R335	1-247-852-11	CARBON	7.5K 5% 1/4W	<CRYSTAL>			
R336	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	X331	1-567-307-11	OSCILLATOR, CRYSTAL	
R337	1-216-184-00	METAL GLAZE	270 5% 1/8W	X332	1-567-131-00	OSCILLATOR, CRYSTAL	
R338	1-216-001-00	METAL GLAZE	10 5% 1/10W	*****			
R339	1-216-033-00	METAL GLAZE	220 5% 1/10W	*1-633-408-11	F BOARD		
R340	1-216-121-00	METAL GLAZE	1M 5% 1/10W	*****			
R341	1-216-031-00	METAL GLAZE	180 5% 1/10W	*1-566-664-11	PIN, CONNECTOR 4P		
R342	1-216-041-00	METAL GLAZE	470 5% 1/10W	<FUSE>			
R344	1-216-089-00	METAL GLAZE	47K 5% 1/10W	F1601	1-532-350-11	FUSE, TIME-LAG 4A/250V	
R346	1-216-202-00	METAL GLAZE	1.5K 5% 1/8W		1-533-230-11	HOLDER, FUSE; F1601	
R347	1-216-073-00	METAL GLAZE	10K 5% 1/10W	<SWITCH>			
R348	1-216-089-00	METAL GLAZE	47K 5% 1/10W	S1701	1-571-433-11	SWITCH, PUSH (AC POWER)	
R349	1-216-045-00	METAL GLAZE	680 5% 1/10W	*****			
R350	1-216-045-00	METAL GLAZE	680 5% 1/10W	*A-1632-005-A	A BOARD, COMPLETE		
R351	1-216-033-00	METAL GLAZE	220 5% 1/10W	*****			
R354	1-216-033-00	METAL GLAZE	220 5% 1/10W	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)		
R355	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	*1-564-881-11	PLUG, CONNECTOR 4P		
R356	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	*1-564-886-11	PLUG, CONNECTOR 9P		
R358	1-216-033-00	METAL GLAZE	220 5% 1/10W	*1-565-393-11	CONNECTOR, BOARD TO BOARD		
R359	1-216-089-00	METAL GLAZE	47K 5% 1/10W	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P		
R360	1-216-089-00	METAL GLAZE	47K 5% 1/10W	<CAPACITOR>			
R361	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	C101	1-126-233-11	ELECT	22MF 20% 50V
R362	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C102	1-126-103-11	ELECT	470MF 20% 16V
R363	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	C104	1-124-910-11	ELECT	47MF 20% 50V
R364	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	C106	1-126-233-11	ELECT	22MF 20% 50V
R365	1-216-047-00	METAL GLAZE	820 5% 1/10W	C108	1-136-165-00	FILM	0.1MF 5% 50V
R366	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	C109	1-163-133-00	CERAMIC CHIP	470PF 5% 50V
R367	1-216-033-00	METAL GLAZE	220 5% 1/10W	C111	1-124-925-11	ELECT	2.2MF 20% 50V
R370	1-216-033-00	METAL GLAZE	220 5% 1/10W	C115	1-124-925-11	ELECT	2.2MF 20% 50V
R372	1-216-023-00	METAL GLAZE	82 5% 1/10W	C127	1-124-122-11	ELECT	100MF 20% 50V
R376	1-249-429-11	CARBON	10K 5% 1/4W	C128	1-124-910-11	ELECT	47MF 20% 50V
R377	1-216-043-00	METAL GLAZE	560 5% 1/10W	C129	1-124-910-11	ELECT	47MF 20% 50V
R378	1-216-097-00	METAL GLAZE	100K 5% 1/10W	C138	1-136-165-00	FILM	0.1MF 5% 50V
R379	1-216-089-00	METAL GLAZE	47K 5% 1/10W	C171	1-163-005-11	CERAMIC CHIP	470PF 10% 50V
R380	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	C172	1-163-005-11	CERAMIC CHIP	470PF 10% 50V
R381	1-216-093-00	METAL GLAZE	68K 5% 1/10W	C177	1-102-074-00	CERAMIC	0.001MF 10% 50V
R382	1-216-103-00	METAL GLAZE	180K 5% 1/10W	C181	1-101-004-00	CERAMIC	0.01MF 50V
R383	1-216-115-00	METAL GLAZE	560K 5% 1/10W				
R384	1-216-029-00	METAL GLAZE	150 5% 1/10W				
R385	1-216-085-00	METAL GLAZE	33K 5% 1/10W				
R387	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R388	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R389	1-216-101-00	METAL GLAZE	150K 5% 1/10W				
R390	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R391	1-216-023-00	METAL GLAZE	82 5% 1/10W				
R392	1-216-019-00	METAL GLAZE	56 5% 1/10W				
R393	1-216-019-00	METAL GLAZE	56 5% 1/10W				
R394	1-216-019-00	METAL GLAZE	56 5% 1/10W				
R395	1-216-214-00	METAL GLAZE	4.7K 5% 1/8W				
R396	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R398	1-216-081-00	METAL GLAZE	22K 5% 1/10W				



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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<IC>				<IF BLOCK>			
IC103	8-759-979-62	IC PUP8574		VIF101	1-466-154-21	IF BLOCK (IFG-389S)	
<COIL>				*****			
L100	1-410-116-11	INDUCTOR 0.56MMH		*A-1638-004-A	C BOARD, COMPLETE		
L101	1-408-225-00	INDUCTOR 3.3UH		*****			
L102	1-408-413-00	INDUCTOR 22UH		*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		
L107	1-408-397-00	INDUCTOR 1UH		*1-568-878-51	PIN, CONNECTOR 3P		
<TRANSISTOR>				*1-568-881-51	PIN, CONNECTOR 6P		
Q113	8-729-271-22	TRANSISTOR 2SC2712-G		*4-379-160-01	COVER (REAR LID), CV		
Q114	8-729-271-22	TRANSISTOR 2SC2712-G		*4-379-167-01	COVER (MAIN), CV		
Q115	8-729-271-22	TRANSISTOR 2SC2712-G		<CONNECTOR>			
Q116	8-729-271-22	TRANSISTOR 2SC2712-G		C71	*1-506-371-00	PIN, CONNECTOR 2P	
Q125	8-729-900-89	TRANSISTOR DTC144ES		<CAPACITOR>			
Q126	8-729-901-06	TRANSISTOR DTA144EK		C703	1-102-980-00	CERAMIC 270PF 5% 50V	
Q181	8-729-119-78	TRANSISTOR 2SC2785-HFE		C704	1-102-116-00	CERAMIC 680PF 10% 50V	
<RESISTOR>				C705	1-102-978-00	CERAMIC 220PF 5% 50V	
JR252	1-216-296-00	METAL GLAZE 0 5% 1/8W		C706	1-102-116-00	CERAMIC 680PF 10% 50V	
JR253	1-216-296-00	METAL GLAZE 0 5% 1/8W		C707	1-162-116-00	CERAMIC 680PF 10% 2KV	
JR255	1-216-296-00	METAL GLAZE 0 5% 1/8W		C708	1-162-114-00	CERAMIC 0.0047MF 2KV	
JR256	1-216-296-00	METAL GLAZE 0 5% 1/8W		C709	1-102-116-00	CERAMIC 680PF 10% 50V	
JR257	1-216-296-00	METAL GLAZE 0 5% 1/8W		C710	1-123-947-00	ELECT 10MF 20% 250V	
JR258	1-216-296-00	METAL GLAZE 0 5% 1/8W		C711	1-101-880-00	CERAMIC 47PF 5% 50V	
R101	1-216-025-00	METAL GLAZE 100 5% 1/10W		C712	1-102-980-00	CERAMIC 270PF 5% 50V	
R105	1-216-079-00	METAL GLAZE 18K 5% 1/10W		C714	1-124-360-00	ELECT 1000MF 20% 16V	
R107	1-216-081-00	METAL GLAZE 22K 5% 1/10W		C716	1-162-622-11	CERAMIC 330PF 10% 400V	
R108	1-216-079-00	METAL GLAZE 18K 5% 1/10W		C717	1-102-114-00	CERAMIC 470PF 10% 50V	
R110	1-249-429-11	CARBON 10K 5% 1/4W		C718	1-102-114-00	CERAMIC 470PF 10% 50V	
R111	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W		C719	1-102-114-00	CERAMIC 470PF 10% 50V	
R116	1-216-023-00	METAL GLAZE 82 5% 1/10W		<DIODE>			
R118	1-216-085-00	METAL GLAZE 33K 5% 1/10W		D701	8-719-929-16	DIODE HZS9.1NB3	
R128	1-216-027-00	METAL GLAZE 120 5% 1/10W		D702	8-719-911-19	DIODE 1SS119	
R129	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		D703	8-719-911-19	DIODE 1SS119	
R130	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		D704	8-719-911-19	DIODE 1SS119	
R157	1-216-049-00	METAL GLAZE 1K 5% 1/10W		D705	8-719-911-19	DIODE 1SS119	
R158	1-249-409-11	CARBON 220 5% 1/4W		D706	8-719-911-19	DIODE 1SS119	
R159	1-249-409-11	CARBON 220 5% 1/4W		D707	8-719-911-19	DIODE 1SS119	
R161	1-216-089-00	METAL GLAZE 47K 5% 1/10W		D708	8-719-911-19	DIODE 1SS119	
R162	1-216-095-00	METAL GLAZE 82K 5% 1/10W		D709	8-719-911-19	DIODE 1SS119	
R163	1-216-095-00	METAL GLAZE 82K 5% 1/10W		D710	8-719-911-19	DIODE 1SS119	
R164	1-216-075-00	METAL GLAZE 12K 5% 1/10W		D711	8-719-300-33	DIODE RU-3AM	
R165	1-216-075-00	METAL GLAZE 12K 5% 1/10W		D713	8-719-911-19	DIODE 1SS119	
R167	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W		<JACK>			
R168	1-216-089-00	METAL GLAZE 47K 5% 1/10W		J701	1-526-990-11	SOCKET, PICTURE TUBE	
R169	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W		<COIL>			
R181	1-216-049-00	METAL GLAZE 1K 5% 1/10W		L704	1-410-878-11	INDUCTOR 33UH	
R182	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		<TRANSISTOR>			
R193	1-216-073-00	METAL GLAZE 10K 5% 1/10W		Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R194	1-216-017-00	METAL GLAZE 47 5% 1/10W		Q703	8-729-906-70	TRANSISTOR BF871	
R195	1-216-017-00	METAL GLAZE 47 5% 1/10W		Q704	8-729-200-17	TRANSISTOR 2SA1091-0	
R196	1-216-113-00	METAL GLAZE 470K 5% 1/10W		Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<TUNER>							
TU101A	1-465-301-11	TUNER, ET (UV-816(PLL))					

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C

D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q706	8-729-906-70	TRANSISTOR BF871			4-200-091-01	HOLDER, IC	
Q707	8-729-200-17	TRANSISTOR 2SA1091-0			*4-341-751-01	EYELET	
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE			*4-341-752-01	EYELET	
Q709	8-729-906-70	TRANSISTOR BF871			*4-368-683-01	SPRING	
Q710	8-729-200-17	TRANSISTOR 2SA1091-0					
<RESISTOR>				<CAPACITOR>			
R704	1-216-486-00	METAL OXIDE 8.2K 5% 3W F		C002	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
R705	1-202-824-00	SOLID 3.3K 10% 1/2W		C003	1-123-875-11	ELECT 10MF	20% 50V
R706	1-249-409-11	CARBON 220 5% 1/4W		C004	1-124-120-11	ELECT 220MF	20% 16V
R707	1-249-412-11	CARBON 390 5% 1/4W		C005	1-124-791-11	ELECT 1MF	20% 50V
R708	1-249-401-11	CARBON 47 5% 1/4W		C006	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
R709	1-202-844-00	SOLID 330K 10% 1/2W		C007	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
R710	1-215-465-00	METAL 68K 1% 1/6W		C008	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
R711	1-249-426-11	CARBON 5.6K 5% 1/4W		C009	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
R712	1-249-417-11	CARBON 1K 5% 1/4W		C010	1-124-120-11	ELECT 220MF	20% 16V
R713	1-215-471-00	METAL 120K 1% 1/6W		C011	1-164-232-11	CERAMIC CHIP 0.01MF	50V
R714	1-216-486-00	METAL OXIDE 8.2K 5% 3W F		C012	1-123-875-11	ELECT 10MF	20% 50V
R715	1-202-824-00	SOLID 3.3K 10% 1/2W		C013	1-106-220-00	MYLAR 0.1MF	10% 100V
R716	1-249-409-11	CARBON 220 5% 1/4W		C014	1-106-220-00	MYLAR 0.1MF	10% 100V
R717	1-249-415-11	CARBON 680 5% 1/4W		C015	1-124-902-00	ELECT 0.47MF	20% 50V
R718	1-202-814-11	SOLID 33K 10% 1/2W		C016	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
R719	1-249-401-11	CARBON 47 5% 1/4W		C017	1-106-220-00	MYLAR 0.1MF	10% 100V
R720	1-249-423-11	CARBON 3.3K 5% 1/4W		C018	1-163-127-00	CERAMIC CHIP 270PF	5% 50V
R721	1-202-842-11	SOLID 220K 10% 1/2W		C019	1-106-383-00	MYLAR 0.047MF	10% 100V
R722	1-202-848-00	SOLID 680K 10% 1/2W		C020	1-124-917-11	ELECT 33MF	20% 50V
R723	1-249-417-11	CARBON 1K 5% 1/4W		C021	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R724	1-202-846-00	SOLID 470K 10% 1/2W		C022	1-164-232-11	CERAMIC CHIP 0.01MF	50V
R725	1-202-838-00	SOLID 100K 10% 1/2W		C023	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R726	1-202-824-00	SOLID 3.3K 10% 1/2W		C024	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R727	1-249-409-11	CARBON 220 5% 1/4W		C025	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R728	1-216-347-11	METAL OXIDE 0.68 5% 1W F		C027	1-124-910-11	ELECT 47MF	20% 50V
R729	1-249-416-11	CARBON 820 5% 1/4W		C029	1-163-081-00	CERAMIC CHIP 0.22MF	25V
R730	1-249-401-11	CARBON 47 5% 1/4W		C030	1-163-081-00	CERAMIC CHIP 0.22MF	25V
R731	1-249-423-11	CARBON 3.3K 5% 1/4W		C031	1-163-081-00	CERAMIC CHIP 0.22MF	25V
R732	1-249-415-11	CARBON 680 5% 1/4W		C032	1-163-081-00	CERAMIC CHIP 0.22MF	25V
R733	1-249-415-11	CARBON 680 5% 1/4W		C251	1-124-791-11	ELECT 1MF	20% 50V
R734	1-249-405-11	CARBON 100 5% 1/4W		C252	1-126-233-11	ELECT 22MF	20% 50V
R735	1-215-493-00	METAL 1M 1% 1/6W		C253	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
R736	1-216-486-00	METAL OXIDE 8.2K 5% 3W F		C254	1-106-220-00	MYLAR 0.1MF	10% 100V
R737	1-215-491-00	METAL 820K 1% 1/6W		C255	1-124-636-00	ELECT 3300MF	20% 25V
R739	1-249-417-11	CARBON 1K 5% 1/4W		C261	1-124-791-11	ELECT 1MF	20% 50V
<VARIABLE RESISTOR>				C262	1-126-233-11	ELECT 22MF	20% 50V
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M		C263	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
RV702	1-230-619-11	RES, ADJ, METAL GLAZE 110M		C264	1-106-220-00	MYLAR 0.1MF	10% 100V
RV703	1-237-749-11	RES, ADJ, CARBON 2200		C265	1-124-564-11	ELECT 4700MF	20% 25V
RV704	1-237-749-11	RES, ADJ, CARBON 2200		C501	1-124-927-11	ELECT 4.7MF	20% 50V
*****				C502	1-124-927-11	ELECT 4.7MF	20% 50V
*A-1642-011-A	D BOARD, COMPLETE			C503	1-106-371-00	MYLAR 0.015MF	10% 400V
*****				C504	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			C505	1-108-794-11	MYLAR 0.0015MF	5% 50V
*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			C506	1-106-375-12	MYLAR 0.022MF	10% 250V
*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)			C507	1-130-783-00	MYLAR 0.33MF	10% 100V
*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR			C508	1-106-375-12	MYLAR 0.022MF	10% 250V
*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)			C509	1-106-220-00	MYLAR 0.1MF	10% 100V
*1-568-106-11	PIN, CONNECTOR 4P			C510	1-161-959-00	CERAMIC 22PF	10% 500V
*1-568-536-11	PLUG (MINIATURE DY) 6P			C511	1-108-620-11	MYLAR 0.0033MF	10% 100V
*1-568-878-51	PIN, CONNECTOR 3P			C512	1-106-220-00	MYLAR 0.1MF	10% 100V
*1-568-881-51	PIN, CONNECTOR 6P			C513	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
*1-568-882-51	PIN, CONNECTOR 7P			C514	1-106-228-00	MYLAR 0.22MF	10% 100V
				C515	1-124-791-11	ELECT 1MF	20% 50V
				C516	1-108-614-11	MYLAR 0.001MF	10% 100V
				C517	1-124-252-00	ELECT 0.33MF	20% 50V
				C518	1-124-902-00	ELECT 0.47MF	20% 50V

D

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C519	1-136-173-00	FILM 0.47MF	5% 50V	C821	$\Delta$ 1-162-116-51	CERAMIC 680PF	10% 2KV
C520	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	C822	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C521	1-106-220-00	MYLAR 0.1MF	10% 100V	C823	1-106-359-00	MYLAR 0.0047MF	10% 400V
C522	1-124-122-11	ELECT 100MF	20% 50V	C824	1-102-212-00	CERAMIC 820PF	10% 500V
C523	1-108-614-11	MYLAR 0.001MF	10% 100V	C825	1-106-375-12	MYLAR 0.022MF	10% 250V
C524	1-108-798-11	MYLAR 0.0033MF	5% 50V	C1601	$\Delta$ 1-136-518-11	FILM 0.33MF	20% 300V
C525	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C1602	$\Delta$ 1-136-519-11	FILM 0.47MF	20% 300V
C526	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C1603	$\Delta$ 1-164-322-51	CERAMIC 0.0047MF	20% 400V
C527	1-106-220-00	MYLAR 0.1MF	10% 100V	C1604	$\Delta$ 1-164-322-51	CERAMIC 0.0047MF	20% 400V
C531	1-124-190-00	ELECT 680MF	10% 25V	C1605	$\Delta$ 1-164-322-51	CERAMIC 0.0047MF	20% 400V
C532	1-124-514-11	ELECT 100MF	20% 50V	C1606	$\Delta$ 1-164-322-51	CERAMIC 0.0047MF	20% 400V
C533	1-106-216-00	MYLAR 0.068MF	10% 100V	C1607	$\Delta$ 1-161-964-61	CERAMIC 0.0047MF	250V
C534	1-124-120-11	ELECT 220MF	20% 16V	<FILTER>			
C536	1-131-365-00	TANTALUM 10MF	10% 16V	CF001	1-577-364-11	VIBRATOR, CERAMIC	
C537	1-124-791-11	ELECT 1MF	20% 50V	CF501	1-567-888-11	OSCILLATOR, CERAMIC	
C538	1-108-614-11	MYLAR 0.001MF	10% 100V	<DIODE>			
C539	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	D001	8-719-911-19	DIODE 1SS119	
C540	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	D002	8-719-929-03	DIODE HZS6.8NB3	
C592	1-124-122-11	ELECT 100MF	20% 50V	D003	8-719-911-19	DIODE 1SS119	
C593	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	D004	8-719-911-19	DIODE 1SS119	
C601	$\Delta$ 1-161-964-61	CERAMIC 0.0047MF	250V	D005	8-719-109-89	DIODE RD5.6ES-B2	
C602	$\Delta$ 1-161-964-61	CERAMIC 0.0047MF	250V	D006	8-719-929-71	DIODE HZS33NB1	
C603	$\Delta$ 1-161-964-61	CERAMIC 0.0047MF	250V	D007	8-719-911-19	DIODE 1SS119	
C604	$\Delta$ 1-125-318-11	ELECT (BLOCK) 220MF	20% 400V	D009	8-719-109-89	DIODE RD5.6ES-B2	
C605	1-124-510-11	ELECT 220MF	20% 35V	D010	8-719-120-78	DIODE RD6.2ES-L3	
C606	1-163-137-00	CERAMIC CHIP 680PF	5% 50V	D011	8-719-120-78	DIODE RD6.2ES-L3	
C607	1-130-834-00	MYLAR 1MF	10% 63V	D271	8-719-110-36	DIODE RD13ES-B2	
C608	1-124-927-11	ELECT 4.7MF	20% 50V	D272	8-719-911-19	DIODE 1SS119	
C611	1-124-910-11	ELECT 47MF	20% 50V	D501	8-719-911-19	DIODE 1SS119	
C612	1-108-614-11	MYLAR 0.001MF	10% 100V	D504	8-719-911-55	DIODE U05G	
C613	1-136-539-11	FILM 0.0022MF	3% 2KV	D506	8-719-800-76	DIODE 1SS226	
C614	1-102-030-00	CERAMIC 330PF	10% 500V	D508	8-719-911-19	DIODE 1SS119	
C615	1-124-557-11	ELECT 1000MF	20% 25V	D509	8-719-911-19	DIODE 1SS119	
C616	1-102-030-00	CERAMIC 330PF	10% 500V	D511	8-719-911-55	DIODE U05G	
C617	1-124-122-11	ELECT 100MF	20% 50V	D512	8-719-911-55	DIODE U05G	
C618	1-162-115-00	CERAMIC 330PF	10% 2KV	D513	8-719-928-85	DIODE HZS4.7NB2	
C619	1-124-556-11	ELECT 2200MF	20% 16V	D601	$\Delta$ 8-719-946-90	DIODE KBU4JL-6088	
C620	1-136-173-00	FILM 0.47MF	5% 50V	D602	8-719-300-33	DIODE RU-3AM	
C621	1-124-347-00	ELECT 100MF	20% 160V	D603	8-719-911-55	DIODE U05G	
C622	1-124-556-11	ELECT 2200MF	20% 16V	D604	8-719-911-55	DIODE U05G	
C623	1-124-910-11	ELECT 47MF	20% 50V	D605	8-719-911-55	DIODE U05G	
C624	1-124-122-11	ELECT 100MF	20% 50V	D606	8-719-300-33	DIODE RU-3AM	
C625	1-124-360-00	ELECT 1000MF	20% 16V	D607	8-719-300-33	DIODE RU-3AM	
C626	1-123-875-11	ELECT 10MF	20% 50V	D608	8-719-300-33	DIODE RU-3AM	
C627	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	D609	8-719-929-71	DIODE HZS33NB1	
C631	1-124-927-11	ELECT 4.7MF	20% 50V	D610	8-719-300-59	DIODE CTU-12S	
C632	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	D611	8-719-900-26	DIODE ERD29-08J	
C633	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	D612	8-719-300-59	DIODE CTU-12S	
C801	1-126-105-11	ELECT 1000MF	20% 35V	D613	8-719-979-85	DIODE EGP20G	
C802	1-102-030-00	CERAMIC 330PF	10% 500V	D614	8-719-979-85	DIODE EGP20G	
C804	1-123-948-00	ELECT 22MF	20% 250V	D616	8-719-120-78	DIODE RD6.2ES-L3	
C805	1-162-114-00	CERAMIC 0.0047MF	2KV	D617	8-719-911-19	DIODE 1SS119	
C806	1-106-220-00	MYLAR 0.1MF	10% 100V	D618	8-719-109-89	DIODE RD5.6ES-B2	
C807	1-106-395-00	MYLAR 0.15MF	10% 200V	D619	8-719-929-71	DIODE HZS33NB1	
C810	1-123-024-21	ELECT 33MF	160V	D620	8-719-800-76	DIODE 1SS226	
C811	1-136-113-00	FILM 2MF	5% 200V	D621	8-719-929-71	DIODE HZS33NB1	
C812	1-124-634-11	ELECT 1MF	20% 250V	D622	8-719-911-19	DIODE 1SS119	
C813	1-102-212-00	CERAMIC 820PF	10% 500V	D623	8-719-911-19	DIODE 1SS119	
C814	$\Delta$ 1-161-731-11	CERAMIC 0.001MF	10% 2KV	D624	8-719-911-19	DIODE 1SS119	
C815	1-136-111-00	FILM 1MF	5% 200V				
C817	1-136-565-11	FILM 0.015MF	3% 1.4KV				
C818	1-136-759-11	FILM 0.039MF	10% 630V				
C819	$\Delta$ 1-161-731-11	CERAMIC 0.001MF	10% 2KV				
C820	1-106-218-00	MYLAR 0.0082MF	10% 400V				

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**D**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D630	8-719-110-39	DIODE RD15ES-B1		Q002	8-729-901-06	TRANSISTOR DTA144EK	
D801	8-719-300-33	DIODE RU-3AM		Q003	8-729-216-22	TRANSISTOR 2SA1162-G	
D802	8-719-300-33	DIODE RU-3AM		Q004	8-729-216-22	TRANSISTOR 2SA1162-G	
D803	8-719-300-65	DIODE ES1F		Q005	8-729-901-01	TRANSISTOR DTC144EK	
D804	8-719-911-55	DIODE U05G		Q006	8-729-901-01	TRANSISTOR DTC144EK	
D805	8-719-911-55	DIODE U05G		Q007	8-729-271-22	TRANSISTOR 2SC2712-G	
D806	8-719-945-80	DIODE ERC06-15S		Q008	8-729-271-22	TRANSISTOR 2SC2712-G	
D807	8-719-945-80	DIODE ERC06-15S		Q009	8-729-271-22	TRANSISTOR 2SC2712-G	
D808	8-719-900-26	DIODE ERD29-08J		Q251	8-729-271-22	TRANSISTOR 2SC2712-G	
<IC>				Q261	8-729-271-22	TRANSISTOR 2SC2712-G	
IC001	8-759-501-66	IC SDA2083-B012		Q271	8-729-271-22	TRANSISTOR 2SC2712-G	
IC002	8-752-332-82	IC CXD1050A-09P		Q502	8-729-216-22	TRANSISTOR 2SA1162-G	
IC003	8-759-945-58	IC RC4558P		Q505	8-729-140-96	TRANSISTOR 2SD774-34	
IC005	8-759-748-56	IC SDA2546		Q506	8-729-140-97	TRANSISTOR 2SB734-34	
IC251	8-759-988-94	IC TDA2050		Q507	8-729-216-22	TRANSISTOR 2SA1162-G	
IC261	4-201-023-01	SPACER, INSULATING; IC251		Q598	8-729-216-22	TRANSISTOR 2SA1162-G	
	4-812-134-00	RIVET NYLON, 3.5; IC251		Q601	8-729-111-67	TRANSISTOR 2SB1094-L	
	8-759-988-94	IC TDA2050		Q602	8-729-209-02	TRANSISTOR 2SD1548-LB	
	4-201-023-01	SPACER, INSULATING; IC261		Q603	8-729-111-67	TRANSISTOR 2SB1094-L	
IC261	4-812-134-00	RIVET NYLON, 3.5; IC261		Q604	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q605	8-729-271-22	TRANSISTOR 2SC2712-G	
				Q606	8-729-271-22	TRANSISTOR 2SC2712-G	
				Q607	8-729-920-92	TRANSISTOR 2SD2096-BF	
IC501	8-759-970-73	IC TEA2028B		Q608	8-729-271-22	TRANSISTOR 2SC2712-G	
IC502	8-759-944-57	IC TDA8170		Q609	8-729-320-62	TRANSISTOR 2SD789-34	
IC601	8-759-988-95	IC TEA2260		Q801	8-729-271-22	TRANSISTOR 2SC2712-G	
IC604	8-759-144-84	IC UPC24M05HF		Q804	8-729-304-50	TRANSISTOR 2SD1941-06	
IC608	8-759-037-26	IC TYA7812CT		Q805	8-729-119-80	TRANSISTOR 2SC2688-LK	
<COIL>				<RESISTOR>			
L001	1-408-414-00	INDUCTOR 27UH		R001	1-216-041-00	METAL GLAZE 470 5%	1/10W
L501	1-408-225-00	INDUCTOR 3.3UH		R002	1-216-041-00	METAL GLAZE 470 5%	1/10W
L601	*1-420-872-00	COIL, AIR CORE		R003	1-249-417-11	CARBON 1K 5%	1/4W
L602	1-410-396-41	FERRITE BEAD INDUCTOR		R004	1-216-049-00	METAL GLAZE 1K 5%	1/10W
L603	1-410-396-41	FERRITE BEAD INDUCTOR		R005	1-249-417-11	CARBON 1K 5%	1/4W
L604	1-410-671-31	INDUCTOR 47UH		R006	1-216-073-00	METAL GLAZE 10K 5%	1/10W
L605	1-459-585-11	COIL (WITH CORE) (DRUM TYPE)		R007	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
L606	1-421-013-00	COIL (HORIZONTAL CHOKE) 25UH		R008	1-216-073-00	METAL GLAZE 10K 5%	1/10W
L607	1-410-671-31	INDUCTOR 47UH		R009	1-216-073-00	METAL GLAZE 10K 5%	1/10W
L803	1-459-104-00	COIL, DUST CORE		R010	1-216-041-00	METAL GLAZE 470 5%	1/10W
L804	1-408-239-00	INDUCTOR 4.7MMH		R011	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
L805	▲1-459-755-12	COIL, HORIZONTAL LINEARITY		R013	1-216-073-00	METAL GLAZE 10K 5%	1/10W
L806	1-459-111-00	COIL, DRAM CORE (CDI)		R014	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
L809	*1-420-872-00	COIL, AIR CORE		R015	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
L810	▲1-421-982-12	PMC		R016	1-216-085-00	METAL GLAZE 33K 5%	1/10W
<TRANSFORMER>				R017	1-216-748-11	METAL GLAZE 39K 5%	1/10W
LF1601	▲1-421-866-12	LFT		R018	1-216-095-00	METAL GLAZE 82K 5%	1/10W
LF1602	▲1-421-776-11	LFT		R019	1-216-049-00	METAL GLAZE 1K 5%	1/10W
LF1603	▲1-421-592-21	TRANSFORMER, FERRITE		R020	1-216-049-00	METAL GLAZE 1K 5%	1/10W
T601	▲1-450-038-11	S.R.T		R021	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
T602	▲1-424-277-11	TRANSFORMER, TRIGGER PULSE		R022	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
T801	▲1-437-090-21	HDT		R023	1-216-035-00	METAL GLAZE 270 5%	1/10W
T802	▲1-439-416-11	TRANSFORMER ASSY, FLYBACK (UX-1600)		R024	1-216-049-00	METAL GLAZE 1K 5%	1/10W
<IC LINK>				R025	1-216-025-00	METAL GLAZE 100 5%	1/10W
PS601	▲1-532-984-91	LINK, IC (ICP-N50) 2A		R026	1-249-417-11	CARBON 1K 5%	1/4W
PS602	▲1-532-984-91	LINK, IC (ICP-N50) 2A		R027	1-216-025-00	METAL GLAZE 100 5%	1/10W
PS603	▲1-532-679-91	LINK, IC (ICP-N15) 0.6A		R028	1-216-025-00	METAL GLAZE 100 5%	1/10W
<TRANSISTOR>				R029	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q001	8-729-901-01	TRANSISTOR DTC144EK		R030	1-216-073-00	METAL GLAZE 10K 5%	1/10W
				R031	1-216-081-00	METAL GLAZE 22K 5%	1/10W
				R032	1-216-073-00	METAL GLAZE 10K 5%	1/10W
				R033	1-216-073-00	METAL GLAZE 10K 5%	1/10W
				R034	1-216-077-00	METAL GLAZE 15K 5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R035	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R273	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R036	1-216-079-00	METAL GLAZE	18K 5% 1/10W	R500	1-216-115-00	METAL GLAZE	560K 5% 1/10W
R037	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R501	1-216-041-00	METAL GLAZE	470 5% 1/10W
R038	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R502	1-216-033-00	METAL GLAZE	220 5% 1/10W
R039	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R503	1-216-035-00	METAL GLAZE	270 5% 1/10W
R040	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R504	1-249-420-11	CARBON	1.8K 5% 1/4W
R041	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R505	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R042	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R506	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R043	1-216-041-00	METAL GLAZE	470 5% 1/10W	R509	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R044	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R510	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R045	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R514	1-216-033-00	METAL GLAZE	220 5% 1/10W
R046	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R515	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R047	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R517	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R048	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R518	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R049	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R519	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R050	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R520	1-216-037-00	METAL GLAZE	330 5% 1/10W
R051	1-216-041-00	METAL GLAZE	470 5% 1/10W	R521	1-216-025-00	METAL GLAZE	100 5% 1/10W
R052	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R522	1-249-441-11	CARBON	100K 5% 1/4W
R053	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R523	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R054	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R524	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R055	1-216-037-00	METAL GLAZE	330 5% 1/10W	R525	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R056	1-216-025-00	METAL GLAZE	100 5% 1/10W	R526	1-249-409-11	CARBON	220 5% 1/4W F
R057	1-216-033-00	METAL GLAZE	220 5% 1/10W	R527	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R058	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R528	1-216-031-00	METAL GLAZE	180 5% 1/10W
R059	1-249-417-11	CARBON	1K 5% 1/4W	R529	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R060	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R530	1-249-448-11	CARBON	1.2 5% 1/4W F
R061	1-249-417-11	CARBON	1K 5% 1/4W	R531	1-216-099-00	METAL GLAZE	120K 5% 1/10W
R062	1-249-417-11	CARBON	1K 5% 1/4W	R532	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R063	1-249-429-11	CARBON	10K 5% 1/4W	R533	1-216-295-00	METAL GLAZE	0 5% 1/10W
R064	1-249-417-11	CARBON	1K 5% 1/4W	R534	1-216-119-00	METAL GLAZE	820K 5% 1/10W
R065	1-249-429-11	CARBON	10K 5% 1/4W	R535	1-249-749-00	CARBON	2.2M 5% 1/4W
R066	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R536	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R067	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R537	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R068	1-249-417-11	CARBON	1K 5% 1/4W	R538	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R069	1-249-417-11	CARBON	1K 5% 1/4W	R539	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R070	1-249-417-11	CARBON	1K 5% 1/4W	R540	1-216-013-00	METAL GLAZE	33 5% 1/10W
R071	1-249-417-11	CARBON	1K 5% 1/4W	R541	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R072	1-249-417-11	CARBON	1K 5% 1/4W	R542	1-216-308-00	METAL GLAZE	4.7 5% 1/10W
R073	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R543	1-249-451-11	CARBON	2.2 5% 1/4W
R074	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R544	1-247-745-11	CARBON	330 5% 1/2W
R075	1-216-033-00	METAL GLAZE	220 5% 1/10W	R545	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R076	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R546	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R077	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R547	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R078	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R548	1-216-349-00	METAL OXIDE	1 5% 1W F
R251	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R549	1-216-454-11	METAL OXIDE	390 5% 2W F
R252	1-216-039-00	METAL GLAZE	390 5% 1/10W	R550	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R253	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R551	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R254	1-216-357-00	METAL OXIDE	4.7 5% 1W F	R553	1-216-869-11	METAL OXIDE	1K 5% 1W
R255	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R554	1-216-037-00	METAL GLAZE	330 5% 1/10W
R256	1-216-115-00	METAL GLAZE	560K 5% 1/10W	R555	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R257	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R556	1-216-025-00	METAL GLAZE	100 5% 1/10W
R258	1-215-869-11	METAL OXIDE	1K 5% 1W F	R557	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R259	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R558	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R261	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R559	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R262	1-216-039-00	METAL GLAZE	390 5% 1/10W	R560	1-216-037-00	METAL GLAZE	330 5% 1/10W
R263	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R591	1-216-047-00	METAL GLAZE	820 5% 1/10W
R264	1-216-357-00	METAL OXIDE	4.7 5% 1W F	R592	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R265	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R593	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R266	1-216-115-00	METAL GLAZE	560K 5% 1/10W	R594	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R267	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R597	1-216-041-00	METAL GLAZE	470 5% 1/10W
R268	1-215-869-11	METAL OXIDE	1K 5% 1W F	R598	1-215-900-11	METAL OXIDE	22K 5% 2W F
R269	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R600	1-249-381-11	CARBON	1 5% 1/4W
R271	1-216-045-00	METAL GLAZE	680 5% 1/10W	R601	1-216-353-00	METAL OXIDE	2.2 5% 1W F
R272	1-216-073-00	METAL GLAZE	10K 5% 1/10W				

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

**D**

**H1**

**H2**

**J1**

REF. NO.	PART NO.	DESCRIPTION	REMARK
R603	1-216-469-11	METAL OXIDE 12 5% 3W	F
R604	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R605	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R606	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R607	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R608	<b>A</b> 1-216-488-51	METAL OXIDE 18K 5% 3W	F
R609	1-216-007-00	METAL GLAZE 18 5% 1/10W	
R610	1-244-941-00	CARBON 680K 5% 1/2W	
R611	1-216-015-00	METAL GLAZE 39 5% 1/10W	
R612	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R613	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R614	1-205-758-11	WIREWOUND 100 10% 10W	F
R616	1-216-099-00	METAL GLAZE 120K 5% 1/10W	
R617	1-249-411-11	CARBON 330 5% 1/4W	
R618	1-216-431-11	METAL OXIDE 560 5% 1W	F
R619	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R620	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R621	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R622	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R623	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R624	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R625	1-215-865-11	METAL OXIDE 220 5% 1W	F
R626	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R628	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R629	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R633	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R634	1-216-430-11	METAL OXIDE 390 5% 1W	F
R635	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R636	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R643	1-217-189-21	WIREWOUND 0.12 5% 2W	F
R651	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R653	1-205-758-11	WIREWOUND 100 10% 10W	F
R802	1-249-443-11	CARBON 0.47 5% 1/4W	F
R805	1-249-448-11	CARBON 1.2 5% 1/4W	F
R806	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R807	1-215-869-11	METAL OXIDE 1K 5% 1W	F
R809	1-202-821-11	SOLID 1.8K 10% 1/2W	
R810	1-202-818-00	SOLID 1K 10% 1/2W	
R811	1-215-882-00	METAL OXIDE 22 5% 2W	F
R812	1-249-494-11	CARBON 68K 5% 1/2W	
R815	1-215-884-11	METAL OXIDE 47 5% 2W	F
R816	1-215-868-00	METAL OXIDE 680 5% 1W	F
R817	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R820	1-249-403-11	CARBON 68 5% 1/4W	
R821	1-247-725-11	CARBON 10K 5% 1/4W	F
R822	<b>A</b> 1-217-778-61	FUSIBLE 1K 5% 1W	F
R825	1-216-345-11	METAL OXIDE 0.47 5% 1W	F
R826	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R827	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R828	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R829	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R831	1-249-451-11	CARBON 2.2 5% 1/4W	
R1601	<b>A</b> 1-246-513-75	CARBON 47K 5% 1/4W	
R1602	<b>A</b> 1-244-945-91	CARBON 1M 5% 1/2W	
R1603	<b>A</b> 1-217-328-11	WIREWOUND 2.7 10% 7W	F
R1604	<b>A</b> 1-246-513-75	CARBON 47K 5% 1/4W	
R1605	<b>A</b> 1-218-265-91	METAL GLAZE 8.2M 5% 1W	
R5501	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R5503	1-216-308-00	METAL GLAZE 4.7 5% 1/10W	
R5504	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R5505	1-216-001-00	METAL GLAZE 10 5% 1/10W	

<VARIABLE RESISTOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
RV501	1-238-013-11	RES, ADJ, CARBON 2.2K	
RV502	1-238-016-11	RES, ADJ, CARBON 10K	
RV601	1-238-011-11	RES, ADJ, CARBON 470	
<SPARK GAP>			
SG801	1-519-422-11	GAP, SPARK	
<THERMISTOR>			
THP601	<b>A</b> 1-808-059-31	THERMISTOR, POSITIVE	
*****			
*1-633-409-11	H1 BOARD	*****	
1-562-837-11	JACK		
*1-564-512-11	PLUG, CONNECTOR 9P (KV-C2531D ONLY)		
*1-568-879-51	PIN, CONNECTOR 4P		
*1-568-881-51	PIN, CONNECTOR 6P		
1-569-473-11	JACK BLOCK, PIN 3P (KV-C2531D ONLY)		
<RESISTOR>			
R1651	1-249-413-11	CARBON 470 5% 1/4W	
R1652	1-249-413-11	CARBON 470 5% 1/4W	
<SWITCH>			
S1651	1-571-532-21	SWITCH, TACTIL	
S1652	1-571-532-21	SWITCH, TACTIL	
S1653	1-571-532-21	SWITCH, TACTIL	
*****			
*1-633-410-11	H2 BOARD	*****	
*1-568-882-51	PIN, CONNECTOR 7P		
*4-374-987-01	GUIDE, LIGHT		
*4-381-686-01	BRACKET (B), LIGHT GUIDE		
<DIODE>			
D1651	8-719-948-31	DIODE LD-201VR	
*4-387-825-01	HOLDER, LED; D1651		
D1652	8-719-948-31	DIODE LD-201VR	
*4-387-825-01	HOLDER, LED; D1652		
D1654	8-719-948-31	DIODE LD-201VR	
*4-387-825-01	HOLDER, LED; D1654		
<IC>			
IC1651	8-741-138-70	IC BX-1387	
<RESISTOR>			
R1662	1-249-413-11	CARBON 470 5% 1/4W	
*****			
*A-1651-014-A	J1 BOARD, COMPLETE	*****	
1-561-534-41	SOCKET 21P		
*1-564-518-11	PLUG, CONNECTOR 3P		

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
*1-564-524-11		PLUG, CONNECTOR 9P		C1429	1-136-017-00	CERAMIC CHIP 0.0047MF	50V
*1-564-527-11		PLUG, CONNECTOR 12P		C1430	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
*1-566-641-11		CONNECTOR, HINGE (TAB) 1&P		C1431	1-126-529-11	ELECT 0.47MF	20% 50V
<CAPACITOR>				C1432	1-124-903-00	ELECT 0.47MF	20% 50V
C203	1-124-925-11	ELECT 2.2MF	20% 50V	C1433	1-124-122-11	ELECT 100MF	20% 50V
C205	1-124-927-11	ELECT 4.7MF	20% 50V	C1436	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C206	1-124-925-11	ELECT 2.2MF	20% 50V	C1437	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C207	1-124-927-11	ELECT 4.7MF	20% 50V	C1438	1-106-367-00	MYLAR 0.01MF	10% 400V
C213	1-126-233-11	ELECT 22MF	20% 50V	C1439	1-106-367-00	MYLAR 0.01MF	10% 400V
C214	1-106-363-00	MYLAR 0.0068MF	10% 400V	C1440	1-123-875-11	ELECT 10MF	20% 50V
C217	1-106-363-00	MYLAR 0.0068MF	10% 400V	C1441	1-123-875-11	ELECT 10MF	20% 50V
C218	1-106-375-12	MYLAR 0.022MF	10% 250V	C1442	1-106-220-00	MYLAR 0.1MF	10% 100V
C219	1-106-375-12	MYLAR 0.022MF	10% 250V	C1443	1-106-220-00	MYLAR 0.1MF	10% 100V
C220	1-108-620-11	MYLAR 0.0033MF	10% 100V	C1444	1-124-910-11	ELECT 47MF	20% 50V
C221	1-108-620-11	MYLAR 0.0033MF	10% 100V	C1445	1-102-824-00	CERAMIC 470PF	5% 50V
C222	1-106-385-00	MYLAR 0.056MF	10% 100V	C1446	1-102-824-00	CERAMIC 470PF	5% 50V
C223	1-106-385-00	MYLAR 0.056MF	10% 100V	C1501	1-124-927-11	ELECT 4.7MF	20% 50V
C224	1-106-367-00	MYLAR 0.01MF	10% 400V	C1502	1-124-791-11	ELECT 1MF	20% 50V
C225	1-136-173-00	FILM 0.47MF	5% 50V	C1503	1-108-614-11	MYLAR 0.001MF	10% 100V
C226	1-136-173-00	FILM 0.47MF	5% 50V	C1504	1-124-910-11	ELECT 47MF	20% 50V
C227	1-106-375-12	MYLAR 0.022MF	10% 250V	C1505	1-106-383-00	MYLAR 0.047MF	10% 100V
C228	1-106-379-12	MYLAR 0.033MF	10% 250V	C1507	1-108-620-11	MYLAR 0.0033MF	10% 100V
C229	1-106-371-00	MYLAR 0.015MF	10% 400V	C1508	1-124-791-11	ELECT 1MF	20% 50V
C230	1-106-371-00	MYLAR 0.015MF	10% 400V	C1509	1-124-791-11	ELECT 1MF	20% 50V
C231	1-124-902-00	ELECT 0.47MF	20% 50V	C1511	1-124-927-11	ELECT 4.7MF	20% 50V
C232	1-123-875-11	ELECT 10MF	20% 50V	C1512	1-106-363-00	MYLAR 0.0068MF	10% 400V
C233	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C1513	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C234	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C1514	1-106-375-12	MYLAR 0.022MF	10% 250V
C235	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C1515	1-102-117-00	CERAMIC 820PF	10% 50V
C236	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	<CONNECTOR>			
C237	1-124-902-00	ELECT 0.47MF	20% 50V	CN1401	1-565-838-11	PIN JACK BLOCK 2P	
C238	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	<DIODE>			
C239	1-126-103-11	ELECT 470MF	20% 16V	D201	8-719-929-16	DIODE HZS9.1NB3	
C240	1-163-018-00	CERAMIC CHIP 0.0056MF	10% 50V	D202	8-719-929-16	DIODE HZS9.1NB3	
C241	1-163-018-00	CERAMIC CHIP 0.0056MF	10% 50V	D205	8-719-929-08	DIODE HZS7.5NB3	
C242	1-163-033-00	CERAMIC CHIP 0.022MF	50V	D206	8-719-929-08	DIODE HZS7.5NB3	
C243	1-163-033-00	CERAMIC CHIP 0.022MF	50V	D1401	8-719-929-08	DIODE HZS7.5NB3	
C244	1-163-033-00	CERAMIC CHIP 0.022MF	50V	D1404	8-719-929-08	DIODE HZS7.5NB3	
C245	1-163-033-00	CERAMIC CHIP 0.022MF	50V	D1405	8-719-929-08	DIODE HZS7.5NB3	
C1401	1-123-875-11	ELECT 10MF	20% 50V	D1407	8-719-929-20	DIODE HZS10NB3	
C1402	1-126-103-11	ELECT 470MF	20% 16V	D1408	8-719-929-16	DIODE HZS9.1NB3	
C1403	1-163-003-11	CERAMIC CHIP 330PF	10% 50V	D1409	8-719-929-16	DIODE HZS9.1NB3	
C1404	1-106-220-00	MYLAR 0.1MF	10% 100V	D1410	8-719-929-16	DIODE HZS9.1NB3	
C1405	1-136-017-00	CERAMIC CHIP 0.0047MF	50V	D1415	8-719-929-08	DIODE HZS7.5NB3	
C1406	1-106-220-00	MYLAR 0.1MF	10% 100V	D1418	8-719-929-08	DIODE HZS7.5NB3	
C1407	1-124-910-11	ELECT 47MF	20% 50V	D1419	8-719-929-08	DIODE HZS7.5NB3	
C1408	1-124-122-11	ELECT 100MF	20% 50V	D1420	8-719-929-08	DIODE HZS7.5NB3	
C1409	1-126-233-11	ELECT 22MF	20% 50V	D1421	8-719-929-08	DIODE HZS7.5NB3	
C1410	1-123-875-11	ELECT 10MF	20% 50V	D1422	8-719-929-08	DIODE HZS7.5NB3	
C1411	1-123-875-11	ELECT 10MF	20% 50V	D1423	8-719-929-08	DIODE HZS7.5NB3	
C1412	1-124-910-11	ELECT 47MF	20% 50V	D1424	8-719-929-08	DIODE HZS7.5NB3	
C1413	1-124-910-11	ELECT 47MF	20% 50V	D1425	8-719-929-08	DIODE HZS7.5NB3	
C1414	1-123-875-11	ELECT 10MF	20% 50V	D1426	8-719-929-08	DIODE HZS7.5NB3	
C1415	1-106-220-00	MYLAR 0.1MF	10% 100V	D1501	8-719-300-33	DIODE RU-3AM	
C1416	1-106-220-00	MYLAR 0.1MF	10% 100V	D1502	8-719-911-19	DIODE 1SS119	
C1417	1-124-120-11	ELECT 220MF	20% 16V	D1503	8-719-911-19	DIODE 1SS119	
C1418	1-163-003-11	CERAMIC CHIP 330PF	10% 50V	D1504	8-719-911-19	DIODE 1SS119	
C1419	1-163-003-11	CERAMIC CHIP 330PF	10% 50V				
C1425	1-124-902-00	ELECT 0.47MF	20% 50V				
C1426	1-124-902-00	ELECT 0.47MF	20% 50V				
C1427	1-136-017-00	CERAMIC CHIP 0.0047MF	50V				
C1428	1-136-017-00	CERAMIC CHIP 0.0047MF	50V				



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D1505	8-719-911-19	DIODE 1SS119		R246	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
D1506	8-719-929-79	DIODE HZS36NB4		R247	1-216-075-00	METAL GLAZE 12K 5%	1/10W
D1507	8-719-911-19	DIODE 1SS119		R248	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
D1510	8-719-911-19	DIODE 1SS119		R249	1-216-075-00	METAL GLAZE 12K 5%	1/10W
				R250	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
	<IC>						
IC201	8-759-013-17	IC TDA6200		R1401	1-216-023-00	METAL GLAZE 82 5%	1/10W
IC1401	8-752-032-27	IC CXA1114P		R1402	1-216-170-00	METAL GLAZE 68 5%	1/8W
IC1402	8-759-946-32	IC TEA2014A		R1403	1-216-089-00	METAL GLAZE 47K 5%	1/10W
IC1403	8-759-040-53	IC MC14053BCP		R1404	1-216-178-00	METAL GLAZE 150 5%	1/8W
IC1501	8-759-942-16	IC TEA2031A		R1405	1-249-429-11	CARBON 10K 5%	1/4W
	<TRANSISTOR>						
Q201	8-729-271-22	TRANSISTOR 2SC2712-G		R1407	1-216-113-00	METAL GLAZE 470K 5%	1/10W
Q202	8-729-271-22	TRANSISTOR 2SC2712-G		R1408	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q1401	8-729-216-22	TRANSISTOR 2SA1162-G		R1409	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q1402	8-729-271-22	TRANSISTOR 2SC2712-G		R1410	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q1403	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1411	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q1404	8-729-173-38	TRANSISTOR 2SA733-K					
	<RESISTOR>			R1412	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R201	1-216-079-00	METAL GLAZE 18K 5%	1/10W	R1413	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R202	1-216-206-00	METAL GLAZE 2.2K 5%	1/8W	R1414	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R203	1-216-075-00	METAL GLAZE 12K 5%	1/10W	R1415	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R204	1-216-085-00	METAL GLAZE 33K 5%	1/10W	R1416	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R205	1-216-085-00	METAL GLAZE 33K 5%	1/10W				
R206	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R1417	1-216-023-00	METAL GLAZE 82 5%	1/10W
R207	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R1418	1-247-738-11	CARBON 82 5%	1/2W F
R208	1-216-077-00	METAL GLAZE 15K 5%	1/10W	R1422	1-216-025-00	METAL GLAZE 100 5%	1/10W
R209	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R1423	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R210	1-216-077-00	METAL GLAZE 15K 5%	1/10W	R1424	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R211	1-216-097-00	METAL GLAZE 100K 5%	1/10W				
R212	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R1425	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R213	1-216-077-00	METAL GLAZE 15K 5%	1/10W	R1426	1-216-025-00	METAL GLAZE 100 5%	1/10W
R214	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1427	1-216-001-00	METAL GLAZE 10 5%	1/10W
R215	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R1428	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R216	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R1429	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R217	1-216-077-00	METAL GLAZE 15K 5%	1/10W				
R218	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1430	1-216-170-00	METAL GLAZE 68 5%	1/8W
R219	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R1431	1-216-041-00	METAL GLAZE 470 5%	1/10W
R220	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R1432	1-216-041-00	METAL GLAZE 470 5%	1/10W
R221	1-216-041-00	METAL GLAZE 470 5%	1/10W	R1433	1-216-033-00	METAL GLAZE 220 5%	1/10W
R222	1-216-041-00	METAL GLAZE 470 5%	1/10W	R1434	1-249-393-11	CARBON 10 5%	1/4W F
R223	1-216-049-00	METAL GLAZE 1K 5%	1/10W				
R224	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R1437	1-249-429-11	CARBON 10K 5%	1/4W
R225	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R1440	1-216-045-00	METAL GLAZE 680 5%	1/10W
R226	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R1441	1-216-045-00	METAL GLAZE 680 5%	1/10W
R227	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1442	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R228	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1443	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R229	1-216-075-00	METAL GLAZE 12K 5%	1/10W				
R230	1-216-079-00	METAL GLAZE 18K 5%	1/10W	R1444	1-216-033-00	METAL GLAZE 220 5%	1/10W
R231	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R1445	1-216-095-00	METAL GLAZE 82K 5%	1/10W
R232	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R1446	1-216-033-00	METAL GLAZE 220 5%	1/10W
R233	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R1447	1-216-033-00	METAL GLAZE 220 5%	1/10W
R234	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R1448	1-216-025-00	METAL GLAZE 100 5%	1/10W
R240	1-216-033-00	METAL GLAZE 220 5%	1/10W				
R241	1-216-091-00	METAL GLAZE 56K 5%	1/10W	R1452	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R242	1-216-091-00	METAL GLAZE 56K 5%	1/10W	R1453	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R243	1-216-075-00	METAL GLAZE 12K 5%	1/10W	R1454	1-216-180-00	METAL GLAZE 180 5%	1/8W
R244	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W	R1455	1-216-180-00	METAL GLAZE 180 5%	1/8W
R245	1-216-075-00	METAL GLAZE 12K 5%	1/10W	R1457	1-216-025-00	METAL GLAZE 100 5%	1/10W
				R1459	1-216-025-00	METAL GLAZE 100 5%	1/10W
				R1460	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
				R1461	1-216-190-00	METAL GLAZE 470 5%	1/8W
				R1462	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
				R1463	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
				R1464	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
				R1465	1-216-023-00	METAL GLAZE 82 5%	1/10W
				R1466	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R1467	1-216-025-00	METAL GLAZE 100 5%	1/10W
				R1468	1-216-025-00	METAL GLAZE 100 5%	1/10W
				R1469	1-216-025-00	METAL GLAZE 100 5%	1/10W
				R1470	1-216-025-00	METAL GLAZE 100 5%	1/10W
				R1471	1-216-023-00	METAL GLAZE 82 5%	1/10W
				R1472	1-216-023-00	METAL GLAZE 82 5%	1/10W

# J1 J2 IFG

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1473	1-216-023-00	METAL GLAZE 82 5% 1/10W		L1752	1-412-240-11	INDUCTOR, WIDE BAND	
R1474	1-216-113-00	METAL GLAZE 470K 5% 1/10W		*****			
R1476	1-216-089-00	METAL GLAZE 47K 5% 1/10W		*A-1654-003-A IFG BOARD, COMPLETE			
R1477	1-216-089-00	METAL GLAZE 47K 5% 1/10W		*****			
R1478	1-216-113-00	METAL GLAZE 470K 5% 1/10W		*1-565-488-11 CONNECTOR, BOARD TO BOARD 12P			
R1480	1-216-190-00	METAL GLAZE 470 5% 1/8W		<CAPACITOR>			
R1482	1-216-178-00	METAL GLAZE 150 5% 1/8W		C1	1-164-232-11	CERAMIC CHIP 0.01MF	50V
R1483	1-216-178-00	METAL GLAZE 150 5% 1/8W		C2	1-164-232-11	CERAMIC CHIP 0.01MF	50V
R1484	1-216-073-00	METAL GLAZE 10K 5% 1/10W		C3	1-164-232-11	CERAMIC CHIP 0.01MF	50V
R1485	1-216-073-00	METAL GLAZE 10K 5% 1/10W		C4	1-164-232-11	CERAMIC CHIP 0.01MF	50V
R1486	1-216-073-00	METAL GLAZE 10K 5% 1/10W		C5	1-164-232-11	CERAMIC CHIP 0.01MF	50V
R1487	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		C6	1-164-232-11	CERAMIC CHIP 0.01MF	50V
R1488	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		C7	1-124-791-11	ELECT 1MF	20% 50V
R1489	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		C8	1-123-875-11	ELECT 10MF	20% 50V
R1501	1-216-081-00	METAL GLAZE 22K 5% 1/10W		C9	1-130-471-00	MYLAR 0.001MF	10% 50V
R1502	1-216-083-00	METAL GLAZE 27K 5% 1/10W		C10	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
R1503	1-216-113-00	METAL GLAZE 470K 5% 1/10W		C11	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
R1504	1-216-085-00	METAL GLAZE 33K 5% 1/10W		C12	1-136-298-00	FILM 0.0033MF	2% 100V
R1505	1-216-081-00	METAL GLAZE 22K 5% 1/10W		C13	1-124-477-11	ELECT 47MF	20% 16V
R1506	1-216-113-00	METAL GLAZE 470K 5% 1/10W		C14	1-124-477-11	ELECT 47MF	20% 16V
R1509	1-216-105-00	METAL GLAZE 220K 5% 1/10W		C15	1-124-477-11	ELECT 47MF	20% 16V
R1510	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W		C16	1-124-477-11	ELECT 47MF	20% 16V
R1511	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C17	1-123-875-11	ELECT 10MF	20% 50V
R1512	1-216-073-00	METAL GLAZE 10K 5% 1/10W		C18	1-106-367-00	MYLAR 0.01MF	10% 400V
R1513	1-216-091-00	METAL GLAZE 56K 5% 1/10W		C19	1-106-367-00	MYLAR 0.01MF	10% 400V
R1514	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C20	1-126-233-11	ELECT 22MF	20% 50V
R1515	1-216-117-00	METAL GLAZE 680K 5% 1/10W		C21	1-126-233-11	ELECT 22MF	20% 50V
R1516	1-216-079-00	METAL GLAZE 18K 5% 1/10W		C22	1-106-220-00	MYLAR 0.1MF	10% 100V
R1517	1-216-033-00	METAL GLAZE 220 5% 1/10W		C23	1-106-228-00	MYLAR 0.22MF	10% 100V
R1519	1-216-101-00	METAL GLAZE 150K 5% 1/10W		C24	1-124-963-11	ELECT 33MF	20% 16V
R1520	1-216-113-00	METAL GLAZE 470K 5% 1/10W		C25	1-106-375-12	MYLAR 0.022MF	10% 250V
R1521	1-216-214-00	METAL GLAZE 4.7K 5% 1/8W		C26	1-106-383-00	MYLAR 0.047MF	10% 100V
R1556	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W		C27	1-124-791-11	ELECT 1MF	20% 50V
<VARIABLE RESISTOR>				C28	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
RV1501	1-238-023-11	RES, ADJ, CARBON 470K		C29	1-124-791-11	ELECT 1MF	20% 50V
RV1502	1-238-994-00	RES, ADJ, CARBON 10K		C30	1-124-791-11	ELECT 1MF	20% 50V
RV1503	1-238-017-11	RES, ADJ, CARBON 22K		C31	1-106-367-00	MYLAR 0.01MF	10% 400V
RV1504	1-238-012-11	RES, ADJ, CARBON 1K		C32	1-130-479-00	MYLAR 0.0047MF	5% 50V
RV1505	1-238-023-11	RES, ADJ, CARBON 470K		C33	1-163-081-00	CERAMIC CHIP 0.22MF	25V
RV1506	1-238-017-11	RES, ADJ, CARBON 22K		C34	1-106-228-00	MYLAR 0.22MF	10% 100V
RV1507	1-238-009-11	RES, ADJ, CARBON 220		C35	1-123-875-11	ELECT 10MF	20% 50V
RV1508	1-238-016-11	RES, ADJ, CARBON 10K		C36	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
RV1509	1-238-023-11	RES, ADJ, CARBON 470K		C37	1-124-477-11	ELECT 47MF	20% 16V
*****				C38	1-124-477-11	ELECT 47MF	20% 16V
*1-633-411-11	J2 BOARD	*****		<FILTER>			
*1-537-088-21	TERMINAL BOARD, INPUT/OUTPUT			CDA1	1-404-751-11	DISCRIMINATOR, CERAMIC	
*1-560-278-21	PLUG, CONNECTOR 4P			CDA2	1-404-750-11	DISCRIMINATOR, CERAMIC	
*1-564-517-11	PLUG, CONNECTOR 2P			SFT1	1-527-840-00	FILTER, CERAMIC	
*1-564-519-11	PLUG, CONNECTOR 4P			SFT2	1-527-839-00	FILTER, CERAMIC	
<CAPACITOR>				<DIODE>			
C1751	1-101-005-00	CERAMIC 0.022MF	50V	D3	8-719-400-18	DIODE MA152WK	
C1752	1-101-005-00	CERAMIC 0.022MF	50V	<IC>			
C1755	1-102-114-00	CERAMIC 470PF	10% 50V	IC1	8-759-003-90	IC TBA129	
C1756	1-102-114-00	CERAMIC 470PF	10% 50V	IC2	8-759-003-90	IC TBA129	
<COIL>							
L1751	1-412-240-11	INDUCTOR, WIDE BAND					

The components identified by  
shading and mark  $\Delta$  are critical  
for safety.  
Replace only with part number  
specified.

**KV-C2521D/C2531D**  
RM-689

**IFG**

REF. NO.	PART NO.	DESCRIPTION	REMARK
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IC3	8-759-030-48	IC TDA6600-2	
IC4	8-759-946-99	IC TDA2595-V7	

<COIL>

L1	1-408-410-00	INDUCTOR	12UH
L2	1-408-410-00	INDUCTOR	12UH
L3	1-410-064-11	INDUCTOR	2.7MMH
L4	1-408-421-00	INDUCTOR	100UH
L5	1-408-421-00	INDUCTOR	100UH

<TRANSISTOR>

Q2	8-729-901-00	TRANSISTOR DTC124EK	
Q3	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4	8-729-901-00	TRANSISTOR DTC124EK	

<RESISTOR>

JR8	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR10	1-216-296-00	METAL GLAZE	0	5%	1/8W
R1	1-216-045-00	METAL GLAZE	680	5%	1/10W
R2	1-216-043-00	METAL GLAZE	560	5%	1/10W
R3	1-216-043-00	METAL GLAZE	560	5%	1/10W
R5	1-216-045-00	METAL GLAZE	680	5%	1/10W
R6	1-216-043-00	METAL GLAZE	560	5%	1/10W
R7	1-216-043-00	METAL GLAZE	560	5%	1/10W
R9	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R10	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R11	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R12	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R15	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R16	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R17	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R18	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R19	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R20	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R22	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R24	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R25	1-216-077-00	METAL GLAZE	15K	5%	1/10W

<VARIABLE RESISTOR>

RV1	1-238-016-11	RES. ADJ. CARBON 10K	
RV2	1-238-019-11	RES. ADJ. CARBON 47K	

MISCELLANEOUS

1-236-510-11	NETWORK, DIVIDING (KV-C2531D ONLY)
$\Delta$ 1-426-372-11	COIL, DEMAGNETIZATION
$\Delta$ 1-451-311-21	DEFLECTION YOKE (Y25FXA)
1-452-032-00	MAGNET, DISK; 10MM $\phi$
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM $\phi$

1-503-642-41	SPEAKER (KV-C2521D ONLY)
1-544-146-11	SPEAKER (KV-C2531D ONLY)
1-544-147-11	SPEAKER (KV-C2531D ONLY)
$\Delta$ 1-575-487-11	CORD, POWER (WITH NOISE FILTER)

V901 $\Delta$ 8-733-224-05	PICTURE TUBE (A59JWC60X)
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ACCESSORIES AND PACKING MATERIALS  
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PART NO.	DESCRIPTION	REMARK
1-465-363-11	COMMANDER, REMOTE (RM-689)	
4-200-241-11	MANUAL, INSTRUCTION (KV-C2521D ONLY)	
4-200-262-11	MANUAL, INSTRUCTION (KV-C2531D ONLY)	
*4-200-236-01	CUSHION (UPPER) (ASSY)	
*4-200-237-01	INDIVIDUAL CARTON	
*4-200-238-01	CUSHION, LOWER	
*4-381-155-01	BAG, PROTECTION	

